Magister-Auctor Saga

The paradise of books

Lev Auctor Maria liber

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Learning communities and learning groups are here Charter Groups [see *The Age of the Learner*].

Completely revised version by Maria Liber in 122.25
From 121.27 onwards some parts of this book were written by Lev in the first person.
I made a thorough revision of all parts in 122.25, so some years after Lev's death.
I did not change anything Lev wrote for the first publication in 122.15 because of the great respect and admiration I have always had for my father-in-law. Maria Liber.

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To Manuel, Sebastião
and Olívia

Ultimate Bloomcamp danger (2091-2094)

Fernanda comes out of the metro station whereto she accompanied Joana a few months ago before going to Bradin herself. She's just returned from a short stay in Megabelgium. It feels strange not to see her sister at the entrance. Lost in thought, she walks home. As she passes the Paulo Demeester Library House, she sees the light still on. Perhaps Grandma Greta is still there. She hesitates for a moment but then continues on. She'll visit the family tomorrow.

The next day her mother calls her already early the morning. Paulo told her he became a grandfather to a granddaughter. Fernanda remembers that Alberta has been living with a mining engineer for about two years, who, by his own comment, has rarely visited a mine and doubts he has any engineering qualifications. If she's correct, Alberta's partner comes from somewhere out of a the distant Waçúm region. But he does have the very Iberian name Fernando. She remembers this because it's also her name in feminine form of course.

Inês also announces that a small family reunion is planned at Alexandre and Manuela's house. Fernanda promises to come, especially when she hears that Grandma Greta will be there too.

When Fernanda enters the meeting room where the family has gathered, Fernando is just explaining that in his country of origin their daughter would be Ngô N'Kondo Sang from the parents Ngô Fernando and N'Kondo Lejeune Alberta. So, the names appear in reverse order than here.

"It's indeed customary for us to list the proper name first, followed by the surnames," Greta begins. "But there are variations. I remember my grandfather telling me how everyone at Belgian school was addressed by their surname and how the alphabetical

lists were organised by surname. He added that, as a teacher, he always called the children by their proper names and compiled the lists according to those proper names."

Fernanda then asks "So your proper name is Fernando? How did you get such a corrupted Germanic name?"

Fernando chuckles. "Yes, we are *Frithunands*, the *courageous defenders of peace*, aren't we? Actually, I'm Ngô Pham Dung by birth. Pham is my mother's surname. When I applied to come to Euro-Brussels, I had to provide a first name and a surname. So that would be Dung Ngô or Dung Pham. I was advised to use my father's surname, I don't remember why. But I quickly gave up on Euro-Brussels. Dung means roughly '*the courageous one*'. I left for Megalissipo, and on the way, I decided to replace Dung with Fernando. And I kept to the usual order here: Fernando Ngô. Peace meets courage, and it comes from the Chinese south. I don't know if I'm such a courageous defender of peace, but I hope I am," Fernando concludes with a laugh.

"Peace meets courage?" asks Greta.

"Ferdinand would connect the ancient Germanic words *Frid* and *Nand*. That would together be something as the brave peacemaker," Fernanda explains.

"But how did our brave peacemaker end up in Megalissipo?" asks Inês.

"Telling that will take some time," Fernando says, looking at Alberta. Alberta then says, "Go ahead and tell it, Fernando. I think my grandfather, uncle Alexandre, and cousin Greta will appreciate it. And Fernanda should also know what you've been telling me since you arrived."

Fernando nods. "Before we begin, one more thing. As Paulo and Pedro know, Alberta and I have been living together for two years now. We decided to do this shortly after I arrived in Megalissipo. I was just twenty when I left MegaMinh. Euro-Brussels was attracting young mining engineers for potential rare earth prospecting in

Northern Iberia (Southwest Erebúm), and I was up for an adventure. Much of what I'm about to tell you I learned bit by bit. For the past few months, I've been regularly receiving confirmation of what I gathered bit by bit. It's not pleasant."

"No conspiracy theories, Fernando?" asks Sérgio.

"If only they were just theories," sighs Fernando. "I wouldn' t lose any sleep over them. "No, Sérgio. What the *Bloomcampers* are want their ruling puppets to do is unfortunately a harsh reality."

"Come on," says Inês, "tell us!"

"Good. As I said, I had just turned twenty when I got my mining engineering degree. My father is involved in mining prospecting. Since the first half of this century, we have known that the north of what was then Vietnam has reserves of rare earth metals. When the *Bloomcampers* reorganised the world and megapoleis were created, our region increasingly came under the control of the governments of the Middle Kingdom and the Indian Territories. Large parts of the North were evacuated. Two megapoleis were formed: MegaMinh in the south and MegaNang in the center. The former capital of Vietnam was almost completely evacuated, and thus, mining throughout the North came under the control of groups directly under the orders of *Bloomcamp* controlled administration of the Middle Kingdom. When my father retired to MegaMinh he kept telling me about the vast mining areas throughout the Gulf of Tonkin. He suggested I go and take a look.

I was given permission to use the RESULT (*Restricted Ultrafast Transport*) network, and off I went on an adventure some 2,000 km north of MegaMinh. I visited three open-pit mines. What's most striking at such mines is the total destruction of the environment. The pits and corridors are so extensive that you often feel like you're looking at new and toxic desert landscapes. Since the beginning of the second half of this century, the most common behaviour has been rapid extraction, after which the area is left to its fate. I didn't know this when I arrived at the first mine, but I

gradually gained an understanding. Much of today's mining utilises local residents. These are usually rural communities of unsuspecting individuals. In practice, they employ prisoners. These rural communities live far from everything and live under the yoke of a local leader. Fellow mining engineers explained to me that to ensure a sufficient workforce, they make agreements with these leaders. In exchange for payments in kind to the leaders, the mine receives workers. The engineers usually know how this happens, but I'll come back to that. First of all, mining currently has little to do with the mass production of consumer goods. The demand for large quantities of raw materials for the production of individual vehicles, for example, is gone for good. Only the *Bloomcampers* have access to it. Mining itself is generally not a lucrative business. Today, it's solely about extracting the raw materials needed for megalomaniac construction project in space and for some types of highly sophisticated aircrafts primarily for defence purposes."

"Defense purposes?" asks Sérgio. "I thought there wasn't a great need for this right now. Aren't people locked up in the Megapoleis?"

"Exactly," says Fernando. "And that's precisely the point. Those people have to stay in those megapoleis. Around some of the largest units, especially in the Middle Kingdom and in the area that now includes the Union of the American Megapoleis, there are closure rings to prevent too many people from leaving those poleis. Around all *Bloomcamp* Condominiums now have large defensive rings to prevent attacks from rural communities. These are usually brutal attacks by aggressive ignorants. The automatic defensive rings simply kill them."

"Megalomaniac space projects," Fernanda notes thoughtfully.

"Yeah, I don't know if you've heard of *Elysium*?" Fernando answers.

Fernanda, Inês, and Sérgio look at each other in surprise. Then Fernanda says: "*Elysium*…yes, that's what they talk about in Bradin. Many think it's a kind of fantasy city the *Bloomcampers* invented."

“In Bradin,” Fernando smiles. “Only in Bradin? You know…”
“But you were talking about who works in the mines,” Inês interrupts him.
Fernando pauses for a moment and then says, “You know… I saw young boys and middle-aged men among the workers. Those without family sleep in shacks. They have a canteen and little more. The mining engineers call it a fixed-term contract. This contract is rather peculiar. For those under 25, the contract lasts 25 years or until the mine exhausts their capacity. The contract duration decreases by one year for each year the worker is starting older. The minimum duration is two years for those with 48 years of age at the time the contract begins. There are no settlings within 100 km of the mines. The leaders of these villages mostly are themselves dictatorial potentates. They rule with brute force and send out young people. In exchange for a quota of manpower, they receive weapons and ammunition to maintain their own small army and use it to arrest and detain strays in rural communities. Anyone who goes to the mines is not allowed to leave during the term of the contract, under penalty of underground labor, imprisonment, or execution. “Wages” consist of food and a place to sleep. Those who are still alive at the end of the contract are allowed to return to a rural community and are entitled to 100 square meters of land. And that’s it.”
“I understand why you used the word prisoners,” says Greta. “Back in the day, they would have called those labor camps. This is slave labor.”
“Yes, that’s the bottom line. Most mining is done through both open-pit and underground mining. The latter is, of course, much more dangerous. But open-pit mining also causes fatal accidents, especially where people and autonomous vehicles are working in the same location. A twenty-five-year-old young man has about a one-in-three chance of completing his contract. The high mortality rate means that local small rulers supplement their quota with older

men. If they already have a wife and children, their family is required to accompany them. They then stay near the mines in a tent or a self-built shack. Women and children are not allowed to leave the place of the shack or tent. They usually cultivate food in a small vegetable garden. They have to pay with three-quarters of everything they grow or cultivate. Women remain on the site for the same amount of time as their partners; boys automatically receive a contract once they turn 18. Girls are sent back to their place of origin at that age or younger."

Sérgio grows increasingly pale as he hears Fernando's story. He suddenly gets a different picture of life outside the Megapoleis than the rather idyllic image he had formed through his contacts with the *Ignarysis*-groups and the rural groups of the Global Zafónis network *GNet-Z*. That's inhumane," he notes. "Are the Big Executives aware of these practices?"

The rest of the family looks at him in surprise. "My dear naive, there you are again," says Inês. "Isn't the general policy of manipulation to ignorance just coming from those authorities? Have you forgotten what our sons said? A local authority in a particular place may not know the scope of the hunt for ores and minerals. But when we hear almost everywhere how in the Megapoleis the supervision of who leaves is practically nonexistent and the supervision of who enters is very strict, then I can imagine that this is not just because to track down *GNet-Z* members, but to prevent those who escaped from telling their stories. I am convinced that…"

This time it is Fernando who surprises Inês.

"Wait! Sérgio is talking about Zafónis group and you of the *GNet-Z*. Are you aware of the existence of those groups?"

"Alberta, you've been living with that sweet boy for two years, you have a daughter together, and yet you never said anything more about our previous semi-clandestine work at the Library House?" Alexandre notes.

Alberta looks at her grandfather and her great-uncle in turn. "I've

known for a while, of course, that Fernando knows about the *GNet-Z* groups. But I preferred to be discreet. You always say yourselves that we don't know exactly who's spying where. Of course I trust Fernando completely, but a lot of people come to our house, and you never know. We don't have an electronic shield like we do have here in the library."

Fernando looks around and then bursts out laughing.

"Electronic security against eavesdropping? Here! Yes, yes! I was already sweating that I might be saying too much and endangering your safety and mine. May I tell you more?"

"Tell us, tell us," he hears from all sides.

"Well. My absolute bewilderment at everything I saw and heard, and the discomfort I showed, apparently quickly caught the attention of two of my colleagues. Gradually, we developed a greater bond of trust, and one evening the three of us were sitting outside around a small campfire far from our staff residence. Suddenly, one of them asked if I had already heard of *GNet-Z*. Hence my surprise here now, Inês. Both came from Chittagong and apparently entered that mining area clandestinely. They were part of a *GNet-Z* group of engineers trying to map out where the *Bloomcampers* had the most active mining operations and the ores in greatest demand. Due to the fragmentation of information, the closure of many research centers, and the constant counter-information, this is difficult these days. They invited me to join them on their next prospecting trip. Now you should know that nowadays *GNet-Z* have enough miniaturised equipment to set up video calls in the most remote locations. A prospecting trip is a common activity in mining areas and therefore raises few questions if the same small group doesn't make such a trip too often. Two weeks later, we were in a potential new area for exploration, and for the first time I participated in a video call with engineers in other locations, both in the north of the Erebúm continent and in the south of the Alkebulan continent. A colleague from Moon Base 1

also joined the call. That first call was a revelation for me that brought about a definitive change in my life. I didn't want to be complicit in the exploitation of slaves, and moreover, I wanted to learn more about what the *Bloomcampers* are actually planning to do. That's pretty much the goal of that entire engineering group. From the Moon base, there are increasingly disturbing reports that nuclear weapons have been used there to access deep-seated minerals. Now there's a completely crazy plan that goes much further than just drilling some boreholes. Some *Bloomcampers* propose using the large nuclear arsenal that still exists to drill holes more than twenty kilometers deep in certain locations on the planet, thus enabling metal extraction directly from the Earth's mantle. Simultaneously, attacks would be carried out on rural communities located near areas to be explored in coastal areas where the *Moho*-depth is about twenty to thirty km."

"The Moho-depth?" asks Alexandre.

"Sorry. Professional jargon. In simple terms, the Moho-depth is the transition between the Earth's crust and mantle. This is the shallowest beneath the oceans but even then inaccessible for practical purposes. Drilling has so far only reached a depth of 15 km from solid ground. Inland, this depth is around 40 to 60 km, and somewhat more in high mountains. Therefore, coastal areas are the most attractive for breaking through. And these are usually surface areas. All of Iberia is a candidate for demolition, as are large parts of the MegaNang and MegaMinh regions. Shortly after the first video meeting I participated in, we drew up a plan to learn more about what EuroBrussels was developing in that area. I would travel here as a consultant selected by experts from the Middle Kingdom to offer my services for a possible application in sparsely populated parts of Iberia and MegaSul.

Almost four years ago, I received the necessary travel permits to travel via the RESULT connection through the Middle Kingdom and the Holy Orthodox Kingdom of the Russian Nation to MegaBelgium.

As you all know, a significant portion of the Grand Government of virtually the entire Erebúm Continent is still located in Euro-Brussels. The administrators here are considerably more loose-lipped than those of the Middle Kingdom. As soon as they think they're dealing with an insider, they'll talk freely about anything. They rarely respect the rule of compartmentalising information. They'll openly discuss espionage techniques with a mining engineer. And when a mining engineer starts talking about prospecting for superconducting metallic minerals, he immediately and almost unsolicitedly receives information about what *Bloomcampers* plan with Lagrange 3 of the sun-earth system."

"We're thinking about quantum computers or quantum electronic intelligence for communication with automated vehicles exploring space," says Fernanda. "That's why we're also looking for new forms of space travel. In Bradin, there's a lot of enthusiasm for the still for us theoretical Alcubierre drive."

"May I cool your enthusiasm for a moment, Fernanda," says Fernando. "*Bloomcamp* is not at all interested in improving quantum technology for space exploration from Lagrange 3 onwards. *Bloomcamp* is only interested in cooling and superconductivity to her *Elysium*-project to shape. I can assure you that *Elysium* is not a fantasy but a very concrete project that the *Bloomcampers* want to have ready by the end of the century, that is, in ten years' time (!). Much of the research funded is aimed at achieving that *Elysium*-project. And I can also tell you that the money the Brandad Fund invests in mathematical research is related to that, including for Bradin and Megapple, for example."

Fernanda now looks rather disconcerted. She reviews in her head the excitement in the mathematical community whenever funding is received to continue work for what are sometimes even considered rather futuristic projects. Meanwhile, their scientific work is supposedly mainly serving others for a selfish space project? She finds it hard to believe. But perhaps it's too early to express her

doubts. She resolves to try to find out more from other sources to see if others can corroborate Fernando's story.

"How did you end up here in Megalissipo?" asks Greta.

"Sorry, I digressed a bit. But that was to explain to you that I actually got in Euro-Brussels almost all the information we were after with *GNet-Z*I. Still, I wanted cover the official reason of my staying in Erebúm. Therefore, I started preparing the necessary paperwork to go prospecting in southwest Iberia. According to the Iberian Affairs Department of Great Erebúm Administration, the geological maps indicate interesting deposits of zirconium, hafnium, titanium, niobium, tantalum, yttrium, and scandium. Moreover, water is available nearby from a large dam. No one suspected that I also had a number of questions about the exploitation on my list. How did Euro-Brussels view the relationship between automated mining driven by electronic intelligence and the use of cheap labour? I always received the same answer, and that was very sobering. *Bloomcamp* no longer wants to see rare earths used for making electronic intelligence on Earth for mining those same rare earths. There is a very clear mandate to seek out rural communities of unsuspecting people and bind them with "contracts" as is done in the Middle Kingdom. But southwest Iberia is quite different from the mining region in the southeast of that Kingdom. To prevent anyone from disappearing from the mines, you need a kind of concentration camp here. As soon as the prospecting confirms the information from the geological maps, I was told, a large-scale project would be launched. Rural communities within 100 km of the mines would be all forced to go to the mining region. Meanwhile, Megalissipo and Megandalusalgarb would ensure te rest of ignorants to obtain the necessary manpower. An instructional program is ready for the distance learning school in the poor outskirts of these two poleis to lure young people to that area with official propaganda. The concentration camps themselves will have the same design as the labor camps that totalitarian regimes

constructed since the 1930s. They still prove their usefulness today, now that almost everywhere Megapoleis have totalitarian and fascist governments in turn ran by *Bloomcamp* to keep a firm grip on things. My final assignment from Euro-Brussels was therefore to travel to both poleis after completing the prospecting and assist the local authorities in setting up the propaganda to capture unsuspecting individuals."

"But as far as I can see, that didn't happen," says Inês. "You wouldn't talk about it here calmly if you had, but you weren't jailed by the local government for not doing your job either."

Fernando shakes his head. "I bluffed a bit here and there. For to start I worked with the *GNet-Z* Engineers to falsify reports, making the entire region suddenly much less attractive for mining. To dig the shafts, such powerful nuclear explosions would be needed that almost the entire Iberian population would be affected. We expect that for the time being *Bloomcamp* allows the risk to reveal the more intellectual Erebúm too much of its hand is too great. We then produced reports indicating that the activity of the Zafónis groups originating in Iberia has resulted in Charter Groups critically analysing the instructional programs in almost every polis district."

Everyone looks at Fernando a little uneasily. "But isn't that dangerous for those Charter Groups?" thinks Alberta's grandmother Amy.

"No big deal. It's a calculated risk. You're part of the *GNet-Z* and yet you doubt the way in which *Bloomcamp* committed critical intellectuals to their own projects. Similarly, the Great Governments often doubt about the real contours of the activities of *GNet-Z*. Since Alberta and I have been together, I have gradually come to understand the impact of Ignarysis. And that is an essential part of the *GNet-Z* I'd never heard of before. No, the local governments just don't want any trouble. So they prefer to inform the Executive Board that, according to the experts, the conditions are far from ideal and that everything needs to be reviewed more closely. That's

been the case for over two years now, and it looks like it will remain that way for quite some time."
"How long is some time?" asks Greta.
Fernando shrugs. "We don't really know. We don't know how the *Bloomcampers* will react if reports come not only from the Erebúm continent but also from the more critical parts of the Vinland continents and the southeastern regions that mining in here is not worthwhile. Sooner or later, this will look suspicious. We cannot continuously protect the Ignorant, and we are also unable to make all the Knowers understand that they themselves are being manipulated."
"Manipulated…," says Sérgio, "but we still inform ourselves. We have the communities in direct democracy, we work. There are the learning groups assigning the *Charter of the Learner*, we riposte with *GNet-Z*…"
"I don't like having to contradict you, Sérgio. Despite the ongoing epidemics and widespread poverty in large parts of the megalopolis, the world population totals today 7 billion adults. Child mortality rates are rising rapidly, but we can't yet speak of a real decline. On the contrary. With such a large population *GNet-Z is* unable to counter the general Ignorance policy. That is an illusion. From the Moon base, the engineering group receives alarming information about the state of the planet. And there are *Bloomcampers* also worried about. Not to save the planet, but to save their skin. I'm talking about no more than the 40,000 richest inhabitants of the planet. That's just under five hundred thousandths of the adult world population. They have the power and the money to do what they want. Also to choose the intellectuals who work for them. Have you already heard about the *Walking Books*?"
Alexandre and Greta make a sign of recognition.
Alexandre says: "We've known about their existence for a little over a year. It's a kind of response to the *Counter Measure for Culture and Library Clans.* The *Cou-clib-clans* are acting increasingly drastically.

We ourselves decided to seal the originals of everything we have in the library house underground."

"The *Cou-clib-clans* are part of the story. You may also know that *GNet-Z* is trying to understand the connection between *Bloomcamp*, Great and Local governments and those clans. There are things that are not wel explained. Suppose an intellectual, a Knower very important for *Bloomcamp* is attacked by a *Cou-clib-clan.* Then such a person decides to become a Walking Book and go to a remote rural community but never arrives there. I learned in Euro-Brussels that there are guidelines for arresting Walking Books before they go into hiding. But we don't really know what happens. Are they arrested? Do they stay in rural communities without connection to *GNet-Z.* Do they die along the way? Are they killed?"

Fernanda sighs. "We actually just came to admire your daughter. But you've given us so much to think about. And you? Do you feel safe here? You were in Euro-Brussels, and now you're here…"

Alberta and Fernando laugh. "Well," says Alberta. "We met by chance in the museum workshop where he was dropping off minerals from his prospecting trip. He said he was just passing through and would be returning to MegaMinh from here. It didn't take long for him to settle down at my place. And I told him I'd be happy to spend my life with him, just not in MegaMinh."

"And so," laughs Fernando, "I'm sitting here. For the moment, I'm not in danger. I'm still here on an official mission for Euro-Brussels. I regularly meet with the Local Government, where we continue to discuss the risks of mining in Iberia. We don't know what the next few years will bring. Perhaps I'll be considered suspicious now because I'm coming to your Library House. Who knows, maybe someday we'll be a Walking Book family. Then we won't go to Mega Minh, but to one of the communities somewhere between the tropics on the Alkebulan continent. And by the way, I want to give a hand to the Charter Groups the Library House supports for children. Alexandre, will you enlist my help to work with children

who are developing geographic projects?"

A few days later, Inês and Fernanda each ask their acquaintances who left Megalissipo in the last two years. They quickly discover that almost no one knows their current destination. There are no video calls or correspondence with most of them. The few who do resurface are somewhere in a community that is in contact with *GNet-Z*. They themselves say they didn't encounter too many difficulties for reaching their respective communities, but that they also nothing know about the others. Some confirm Fernando's information that concentration camps exist where people are forced to work. In Megalissipo itself, however, many believe these reclusive intellectuals are perhaps exaggerating. Are they not wanting to frame their own actions within a kind of conspiracy theory? Most likely, the colleagues of whom no one knows anything are simply working on secret projects. That's nothing new. Many such situations have arisen over the past fifty years, since travel has become less frequent and, due to funding, very strict rules have been imposed on how research should be conducted. Fernanda is only half convinced. So far, no one has forbidden her anything, and she is working on a funded project. When she tells this to her mother, she laughs and notes that there must be less than ten people on the entire planet who understand exactly what Fernanda is working on.

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In the Zandvoorde polder district of the Megabelgium Kust district, Hans Haas is working in his small workshop. He's looking at the pile of electronic devices that need repairing. He's increasingly forced to decide which devices to disassemble to obtain parts to repair others. It's often a matter of guesswork and trial and error. These days, he even gets repair work from people living in other districts. This always involves quite a bit of disinfection, and when done officially, the paperwork is overwhelming. More and more

people have no idea how to maintain the devices they use. They can't or won't read the instructions, and when something breaks, they usually don't have the money to pay for repairs. Then there are only two options: they simply throw away the broken devices, or they have trade-in items for the repairs. All in all, Hans' family rarely needs to use the little amount of digits they still have, according to the implant in their arm. Very rarely does Hans get a few extra digit when a Less Ignorant person who still has a job or is paid to work asks him for a favour. But nine out of ten people who visit him usually offer him food in exchange for his skills. Hans was fortunate enough to have entered a learning community as a young boy. One of the Knowers, who worked remotely with their learning group, sent them electronic kits. There were only three of them, systematically completing the suggested experiments, reading instructions, and gradually developing the skills to solve electronic puzzles. When his parents, due to their age, only maintained the vegetable garden for their own use, he began his barter trade, repairing all kinds of appliances. As electricity became unaffordable for the poor Ignorant, his activities dwindled. He was able to salvage some solar panels and generate his own electricity. By then, he had become known as a repairman.

Go to Hans Haas, he'll definitely find a solution, as rumours circulated in the Zandvoorde area and surrounding districts. Those who were authorised to travel between districts visited him personally, while those who couldn't send them what needed repairing explaining the what and the why by video call. And with the poorest of the ignorant, Hans started a new business. He gave them something in exchange for the broken devices they wanted to bring him instead of simply throwing them away. He came up with the idea when one of his "knowing" customers told him that until the 2050s, the population was required to hand in broken devices at collection points, from where they were taken to recycling facilities. Such facilities eventually operated without human intervention,

meaning the incoming devices weren't always handled very creatively. Hans does that. He rarely needs basic components. He's a craftsman, not an electronic engineer. He quickly realised that if he had enough broken devices, he also had the components to repair others. It did, however, take a lot of time. These days, he also needs a lot of space. More and more Ignorants are coming to his own district to bring in broken devices in exchange for food or a digit. Meanwhile, the number of customers requesting repairs is gradually decreasing. His son Piet celebrated his twentieth birthday a few days ago. He's very interested in what his father does. Hiring him in the workshop would reduce the number of devices requiring repair more quickly, but it's not certain they would generate more income. Currently Piet earns his digits from his work as a sound engineer at the local playground and sports field. It's not much, but he has that little bit of security he would lose in the workshop.

Meanwhile, Piet is well aware of the importance of the Knowers in the district. He can access technical literature from them in one of the two remaining libraries, but he can also participate in activities that impart more Knowledge than what he receives on the playground and sports field. He hasn't used streaming for a long time. The free package is of very questionable quality, and you can't rely on the information. Everything else is too expensive.

Hans is concerned about the attitude of the Ignorant who are incited by the *Cou-clib-clan* who has been active here for several years. They've already destroyed three library houses, and he knows from customers in other districts that all of Megabelgium Kust is experiencing an increasing number of book burnings. In one of the districts, a more electronically savvy Clan even managed to magnetically wipe out all the centrally stored information. Suddenly, no one in that district had any digits left. All personal information was gone, and nothing remained of the libraries. Digits and personal information were restored by the Central Administration, but no one cared about the lost book information.

Hans wonders if these Clans are just made up of ignorant. Even as an electronic craftsman, he can't originate such a magnetic blackout. He might be able to acquire the knowledge with a few months of hard study, but he would never have the resources… No, there's more to these Clans than meets the eye.

Piet enters the studio excitedly. The local *Cou-clib-clan* is destroying the library that the Haas family sometimes uses. The owners have already fled. But the Clan threatens to visit all users of the library. The Clan members are inciting the population: 'the library users are colluding with the Knowing Ones. So they're dangerous. Why? Because! Moreover, there are craftsmen among these users. Craftsmen who regularly receive visitors from other districts while hosting people from the district in their workshops. That's opening the door wide open for a pandemic. Craftsmen, by the way, have other advantages by associating with the Knowers. Or perhaps no one has noticed that they always have the means to buy things with which they serve the Knowing Ones? Down with the craftsmen!'

Hans and his wife have prepared for such a situation, but now that it's here, the news is still a blow. The Haas family will act quickly. Their emergency luggage is ready, and they've had permission to take the surface metro to the edge of Megabelgium Kust for a while now. Hans has saved up some money and used it to claim a three-day stay at the beach. Piet and Hans close the studio and hang the classic "Closed due to family circumstances" sign on the door.

The next morning, the family leaves for the coast. Two hours later, they move into the two rooms they'd booked at the beach hotel. Hans then goes to the local library. He asks for the contact person he'd made arrangements with over two years ago. That same evening, the five family members are visited by a member of the *GNet-Z* who remove the implanted chips from each of them. Now that the decision has been made, there's no turning back. They walk to the small harbour where they board a trailer that will transport them to the docking station of the district where the RESULT train

connecting Megaludein with Megasud stops. The day shift maintenance crew will meet them. Once the train is at the platform, the technician inspecting the semi-automatic train lets them board the locomotive's designated accommodations for technicians. Shortly after, they depart. After a short stop in Megaparisios, they will continue their journey to their final destination in Megasud.

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Chinua Zoungrana watches the sun begin its daily descent back to the homeland. Four times since they left, the moon has disappeared and three times it has returned in all its brilliance in the night sky. And now, the lunar disk is almost completely visible again. Over two hundred of them then set out toward the rising sun. It was a decision made by the entire village community when the water sources dried up, forcing them to find a new place to settle. Those who had joined the village community from what they called the Alkebulan West Coast had warned that going that way would only mean trouble. They spoke of large groups of people living in great poverty and of the danger of being captured before they could find a new settlement. They had lived in the village long enough to be listened to. Initially, they had learned how to cultivate the land. Gradually, they also demonstrated their own skills. As a young man, Chinua had been very interested in learning how to use the measuring devices and small computers the visitors brought with them enabled to work with small solar panels. The community quickly became a close-knit group, with everyone taking turns learning from and teaching others.

The journey had lasted almost four full moons now. This natural cue is very useful during the trek. The measuring devices are often not usable. The group has then to orient itself in time and place by using the positions of the sun, moon, and stars. The count of the days and moons helps to estimate the distance traveled. All in all, the group knows they have now traveled just over a thousand

kilometers.
For the first half of the journey, they had walked almost continuously toward the rising sun. This was still relatively easy at the time. Then they began to veer off and crossed densely wooded areas. Sometimes there were roads, sometimes they could follow animal tracks, and occasionally they had to force their way through. They made little progress during those days. Naturally, they had encountered other groups along the way. Sometimes this led to escalating tensions. Once, it even led to skirmishes, with casualties on both sides. Twice, the entire group had been surrounded and had been led to a local community. In these instances, they had always demonstrated not to be interested in settle where others had already settled. There were also unexpected situations, such as when some members of the village community preferred to remain at one of the meeting places, and some locals decided to join the traveling group. In one instance, his family was some way involved. That was when they had been exchanging stories with a local group one evening. When they moved on two days later, his son Kwame asked if their family could take in another family. They had now been together long enough to see how Kwame and the eldest daughter of the family they took under their wing had become a loving couple.
For a short time, the sun had been moving left way across the sky to the left instead right way. In the Charter Group, Chinua had learned that this meant the equator was now on their left when looking at the rising sun. During the last two meetings, they had received indications from other local communities that if they continued in the south east direction they were now heading, they would arrive at a large inland lake in a few days. They were advised not to lean toward the equator, but rather to lean further away from it. On that side of the lake, they would find no large community, on the other there were still remnants of a restless Megapolis.
Four days after the last encounter with a local community, the somewhat diminished group finally arrives at the lake. The families

are accepted into the Bukoba community. What used to be a fairly large town of around 150,000 residents is now home to some fifty thousand people. Chinua immediately notices the learning communities. He quickly learns that refugees from MegaKampa are staying there after policy fell into the hands of fanatical Ignorants whom even the local government was powerless to deal with.

Along with several other families, the Zoungrana family joins a Charter Group that would quickly have a profound impact on their lives. The Charter Group uses buildings near the small airport. Regularly learning group elements are guided members arriving by *GNet-Z* plane to work with the learning community. Chinua quickly builds a friendship with members of the Hunt community. They systematically report on what's happening in various parts of the planet. In comparison with Erebúm and parts of Abya Yala, the aggression that brought down MegaKampa is *peanuts*. In Erebúm, the *Cou-clib-clans* are becoming increasingly aggressive. In many places, not only books are being burned and libraries attacked, but there are also reports of assassinations, and in at least two areas, it appears the local governments themselves are involved in the attacks on Knowers and users of libraries and Charter Groups.

Six months after their arrival in the Bukoba community, Chinua and Kwame are part of a think tank. The Hunt group is informing the local group about what is rapidly developing in Abya Yala. Especially in the north, intergroup aggression is much greater than in Erebúm. In the south of Anahuac, which had long given hopeful signs of developing communities based on direct democracy, things now seem to be going badly in certain areas, mainly due to pressure from mining for ores and rare earths. Therefore, several Charter Groups have decided to create a kind of refuge in a place where many intellectuals already live nearby. *GNet-Z* groups in those regions assist all those who flee, both those Knowers and those Ignorants who wish to do so, to reach this refuge. It is known that

Bloomcamp does not like to move in the regions between the tropics and the *GNet-Z* groups are able today to mislead those spies somewhat by portraying these areas as too dangerous for any *Bloomcamp* condominium. And meanwhile all 8+ value *Bloomcampers* are locking themselves up in their own condominiums in areas they consider safe, mainly in the Northern Hemisphere.

The think tank reaches an agreement. A shelter for refugees will be established here as well, located on the lake in a remote area about five days' walk away. The plan is that, except possibly by boat via the lake, the only way to reach the site is on foot. The Bukoba community has agreed to keep the precise location secret, and they are also working with other surrounding communities to that end. The risk is relatively low. *Bloomcamp* are already being kept out of the region in other ways, and the Ignorants in the major cities pose no threat. Then the Walking Books are looked at. Establishing the refuge has the additional goal of becoming a kind of repository for the knowledge and literature that is at risk of being lost if it is not stored on the Moon bases or in central databases. The documents themselves are, of course, in even greater danger. The Abya Yala residents have named their refuge *Last Rose of the Desert* after a verse from a poem by Pablo Neruda. In the island area under the Middle Kingdom, a large meeting place forms the *Beautiful Pearl.* There are heated discussions about this in Bukoba. During a meeting of various Charter Groups, members discus the need to create a haven for those who arrive with books or their contents. Furthermore, the necessary infrastructure must be in place to store books electronically, to preserve printed or written copies in good condition, and to reprint what no longer exists in print, in addition to preserving electronic copies. This primarily concerns digitised works with images of all kinds. Since this is about creating a haven, someone suggests the name *Paradise of books,* a simple and clear description.

A few days later, a large group of volunteers leave for a suitable area selected by scouts to begin to built the basic infrastructure for *Paradise of Books.* The intention is that the Walking Books staying in the area will find their destination there starting by the end of 2091. From the following year onwards, *GNet-Z* members will guide Erebúm and Alkebulan Knowers and literature keepers to the site.

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In San Juan, the locals are already used to such journeys. Every so often, a few tired and dusty travellers arrive, most with horse and cart. They look like characters from old movies showed at the community center.

It must have been about 20 years ago that the *Stranger* had made the same journey. He had a vehicle he build himself. Using solar panels, he clandestinely used the RESULT track avoiding each Megapolis. Then he draped the wheels so he could use old roads to the interior. The vehicle wasn't fast, but it did carry a lot of goods. In San Juan, two of the four electric motors finally gave up. The *Stranger* had asked if he could move into a vacant house. There was no shortage of them. As in many rural communities in the area at that time, many young people had moved away and never returned. The community of San Juan remained stable at about a third of its previous population. The *Stranger* talked about life in the Megapolis he himself had left. He quickly managed to interest some young people in mechanics and technology, and with what they found in their own homes and in vacant houses, they were able to get many broken-down machines working. The community center was rehabilitated, and soon a second space was available for film screenings. As soon as the *Stranger* got a communications station up and running he could connect with others in other locations. These others provided the streaming of information and films. Over the next two years, more people settled in San Juan. They brought a great deal of knowledge and the necessary equipment to make San

Juan a more pleasant place. San Juan got a permanent connection to the *GNet-Z*. A Charter Group was established for those interested. The young people still present, in particular, took advantage of this opportunity. Now they are deeply involved in teaching children, and in some cases, even grandchildren. All the vacant houses are back in use.

But another project took shape. Thanks to *GNet-Z* San Juan people were aware of the threat posed to the Knowers in the poleis with large *Cou-clib-clan* groups. Many left the poleis and went into hiding in rural communities. But there was growing concern about the storage and preservation of knowledge outside Universities controlled by *Bloomcamp*. Many complaints came, especially from the North. Those who had used the RESULT corridors to move from Megapple to the East and then southwards found themselves in a kind of bottleneck between North and South Abya Yala. All activities were well controlled by *Bloomcamp* in Panampolis. Not only were there production facilities, but there was also the vital canal connection between the Middle Kingdom and the launch sites for shipping goods to the Moon base and the Lagrange points. The *Stranger* and his team of local and immigrant cooperators agree to prepare a refuge. They repurposed therefore an enormous abandoned agricultural facilities to create spaces for storing all kinds of documents. They also constructed several lookout posts, although the risk of unwanted visitors is very small. Between the Panampolis Canal and the southern border of the Amazon, the *Cou-Clib-Clans* are hardly active. Fortunately, the arrogant Ignorants who lead the Clans operate under the racist assumption that the Knowers primarily remain in the Northern Hemisphere. The Local Governments of the Megapoleis in the Southern Hemisphere should provide facilities to the Knowers who wish to visit research centers in the Northern Hemisphere. In southern Anahuac, MegaChiliCentro, MegaAires, and several Megapoleis on the Atlantic Ocean beneath the Amazon are primarily sites with active

groups of Knowers, most of whom are in permanent contact with *GNet-Z*.

Furthermore, the medium-sized policies in the Southeast have not been controlled by *Bloomcamp* through local governments. In these areas, grassroots groups developed robust forms of direct democracy during the first half of this century. These communities absorb many of the Knowers in zones of the Andes mountain range. As a result, the proportion of Ignorants is lower there than in the Northern Hemisphere. Manipulated local governments and *Cou-clib-clans* are virtually impossible.

The place that has been prepared near San Juan primarily receives those who reach the coast by boat from the north and center of Vineland and Abya Yala. Boats also bring refugees north from Megapolis on the west side of the Andes range. From the coast, they then travel inland either on foot or by horse and cart to the area of San Juan. There, the local population receives them and settles them. One of the first groups to use the place came from MegaChiliCentro and consisted mainly of *Walking Books* with poetry collections. The Southern *Cou-clib-clans* apparently received information that poetry was a dangerous weapon used by the Knowers and therefore had to be destroyed as much as possible. During one of the first meetings of the arriving Refugees and the San Juan community, impressions were exchanged about the region of origin and the region of arrival. The word “desert” was frequently mentioned. *Desert*, which the area west of the Andes is rich in. The place that the San Juan cooperators were preparing seems like a kind of oasis, a flower in the desert. This prompted one of the *Walking Books* to recite a few verses from Veinte Poemas de Amor: ‘*Soy el desesperado, la palabra sin ecos, el que lo perdió todo, y el que todo lo tuvo. Última amarra, cruje en ti mi ansiedad última. En mi tierra desierta eres la última rosa.*?

This already leads the group to a poetic conclusion: ‘This land of ours is the desert where the last rose still blooms. The name for the

place was born: it becomes *Última Rosa del Desierto*.

Fifteen years have passed since that first group settled in. Today, António Márquez arrives with his family and two other families. They made the journey north on foot from where the boat landed five days earlier. Tired and dusty, they arrive and receive a warm welcome. After a good bath and a hearty meal, they look for a place to pitch their family tent.

The next day, António receives a visit from one of the cooperators. A small team has volunteered to help the family build a more permanent home. There are sufficient adobe bricks in stock, and together they can assemble doors and windows. There is also someone who volunteers to provide the family with the necessary knowledge to start tending their vegetable garden. There is a central poultry and goat herd. Anyone can participate in this once the family has registered as a volunteer for animal care. It's helpful to indicate what someone is willing to do. This could range from collecting eggs to milking and making cheese to butchering and processing meat. Even among meat-eaters, not everyone is capable of butchering, and that is respected.

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Fernanda is back in Megabelgium. Together with her mathematics group, she's exploring new ideas related to local spacetime. They hypothesise that it might be simpler to induce small, localised distortions or twists rather than creating a complete space bubble, which, in principle, would make the Alcubierre displacement possible. They're trying to achieve an energy density that doesn't require a negative-mass field. Could twisting, rather than warping, be the solution? They're presenting their calculations to physicists and quantum gravity researchers. One of them immediately jokes, "*Come on baby, let's twist"* while another exclaims: "*Darn it, we don't bend anymore for anyone!"* Fernanda admits that the mental leap itself seems a bit strange, but explains

that they continue to search for a technically feasible use of a form of local micro-space bubbles. Engineers and physicists tell her that the new theoretical description is less hopeless, but that significant technical obstacles remain. Still, it seems more interesting to search for a *TWIST*-dislocation in stead of a *WARP*-dislocation. The group is applying for new funding to build on this idea.

A few weeks later, one evening, Fernanda receives a video message from one of her brothers. They both still live in Euro-Brussels. He announces that both have received special permission to meet her at the Bradin University district. Fernanda is stunned.

“Apparently you’re a Person of Great Importance, sister,” her brother replies. “Would it be convenient if we came over tomorrow? We could have lunch together and spend part of the afternoon together.”

Intrigued, Fernanda agrees. The next day, she waits for them at the RESULT platform. It’s the first time she’s seen them since they disappeared to Euro-Brussels years ago. They embrace and walk hand in hand to the central dining area in the mathematics area.

“I’m curious and surprised,” says Fernanda.

Her eldest brother immediately begins: “We’ve received the information that you’re on the shortlist for the next Fields Medal. But perhaps you already knew that?”

“I don’t know if you’re aware, but Joana is currently staying in Megapple and she hinted to me that my name was mentioned, yes.”

“Look, your work seems to be attracting a lot of interest, even at the highest levels of decision-making. We received information that a group of researchers was applying for new funding to conduct certain tests with a prototype for space transportation. Your mathematical framework for locally manipulating space-time was mentioned several times.”

“I know that those funds would be applied for.”

"Well, the big ones nearly fell off their chairs here at Euro-Brussels

when we learned that there were unlimited funds for that investigation, but with the request to discreetly follow the entire team. Since your name came up in this, we tried to gather more information ourselves."

"And did that yield anything?" asks Fernanda.

"Sister, we really hope you have nothing to do with a community where *Bloomcamp* apparently is seriously concerned about. The Hunt community, does that mean anything to you?"

Fernanda takes a moment to think about her avatar contacts before the secure communication of the *GNet-Z* started up and then says: "I used to be in touch with a certain Victor Hunt Jr. when we were still studying at home. You know that at some point I started to focus more on mathematics than physics. That was partly because of those chats back then. But I don't know if you're talking about the same Hunt."

"Hmm. And these days you don't have any contact with him?"

Fernanda shakes her head energetically.

"Okay. I asked you that because you and our parents belong to the Knowers, as the Great Government call it. And we have information that this Hunt community frequently comes into contact with Knowers using a network, of which we both suspect our parents have long been members. There's relentless pressure from the Local Government to permanently close Grandma Greta and Cousin Alexandre's Library House. On the other hand, there's no green light from above for this. And perhaps that has something to do with you. We think the house will be closed in the coming years anyway. Remember how we advised Alberta never to move in? Fortunately, she never did."

"No. Did you know that she now has a partner and that they have a daughter together?"

Both nod. "Her partner is a consultant for Euro-Brussels. He's involved in several mining prospecting projects. There are a lot of funds for that right now. His tour in Iberia is taking longer than we

anticipated. There are some pretty important strategic decisions coming up, and that's taking more time in negotiations with the local authorities."

"Why did you just say 'fortunately'?" asks Fernanda.

"As you know, we've always warned Mom and Dad that they're doing the wrong thing by participating in that Library House and the learning communities. That's old hat from Grandma Greta's time. They used to talk about the Learner. Today, we have controlled instruction in all the Poleis, and that's much more efficient for maintaining order on a planet that is slowly becoming overpopulated. We're nearing a breaking point, and we must avoid large-scale riots at all costs until we're ready for what comes next. And those kinds of learning communities are a source of frustration. Fortunately, according to the information we have, Alberta has no ties to the learning communities. Fernando will therefore be allowed to bring Alberta and their daughter to Euro-Brussels when his assignment in Megalissipo ends."

"And what is 'next'?" asks Fernanda.

"*Off the record?* Overpopulation will lead to migrations away from Earth. That's why there are such large appropriations for space transportation and for mining in previously unused areas. There's talk of Moon bases, Mars, Ganymede…"

Fernanda looks up… "Making electronic intelligence less dependent on biological intelligence at the Lagrange points… And that's why we're exploring L3 with relays via L4 or L5. Are you aware of that as well?"

The brothers look at each other.

Then the youngest says: "I don't know exactly what you mean, but for now, that's classified information. We're not allowed to talk about this outside Euro-Brussels, not even off the record."

Fernanda reacts a little sullenly. "I still see myself as the big sister to my younger brothers. You chose your path just as I chose mine, and I don't criticise it. I'm more suspicious of governments and

administrators than you are, but okay. Perhaps I shouldn't say this, but I'll say it anyway. I sometimes pick up on things during my trips to Megabelgium and at international forums I participate in. For example, I heard that the mining you mentioned is being exploited on a large scale by rural communities and groups of ignorants from the peripheral districts of Megapoleis. Some even use the term concentration camp. I've also heard that some kind of space city is being considered for L3. There's even a name for it: *Elysium.* No one confirms or denies that information. I don't expect you to clarify this for me. But it makes me think about the actual goodwill of *Bloomcamp*. I sincerely hope that nothing bad happens to us in Euro-Brussels or to us in Megalissipo."

"I think what you may have heard are the outgrowths of conspiracy theories launched by disgruntled Knowers. Connected to that Hunt community I was talking about is an underground network whose purpose is to portray *Bloomcamp* and Central Governments in a bad light. But I can tell you concretely that this concentration camp history is just nonsense."

"Fernanda, I know nothing bad will happen to us. As for the rest of the family… you know our parents are very angry with us. But please, remind them that they're in more danger from getting involved with that Library House than they ever will from Euro-Brussels or the Great Government. Tell them that again, please."

Fernanda has her own thoughts about her youngest brother's final intervention. She knows perfectly well how angry the boys had been with their parents. She simply nods and then says, "Do you have time over for a walk? There's a park nearby, and it's one of the few places in this district where you can usually get coffee. And I would really appreciate it if my two brothers, who have more digits than I do, would pour me a cup of that now almost unaffordable drink."

They both smile. "I'd be happy to offer my sister that cup, and if there's a supply, I'll even buy you a large carton of coffee so you'll

have a nice memory of our meeting in the days to come," Fernanda's older brother replies.

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Back at EuroBrussels, one of the Mestre brothers requests a meeting with the Windsor Condominium.

The Bloomberg 9 who speaks to him starts with a curt "Well?"

"We had the requested meeting with Fernanda Mestre. It's unclear to us whether she has any connections to the Hunt community, but she did admit that her original ideas stemmed, in some sense, from conversations with a certain Victor Hunt Jr., whom she reportedly had contact with during her studies.

We do suspect that she may be exchanging information with the *GNet-Z*. As advised, we didn't mention this network directly, but we did receive an account of the existence of concentration camps.

Furthermore, it appears to us that she has more information regarding the Lagrange missions than is officially provided to those Knowers who work for *Bloomcamp* selected projects. She has explicitly named *Elysium*. We simply repeated the official version that people are being considered for relocations to lunar bases, Mars, and Ganymede, without providing further details."

"Thanks for this update."

"Are there any new instructions?"

"Not at the moment. The formal prohibition for any action against Fernanda Mestre and her immediate surroundings remains in effect."

The formal prohibition on action doesn't withhold the Mestre brothers from discussing their conversation with Fernanda at both the Iberia branch and the *Féderation EuroCentre*. They primarily discuss rumours circulating about forced labor in mining areas in several Megapoleis.

The local authorities for both *EuroCentre* and *EuroSouth* believe the time is ripe for an attack on libraries and learning communities.

They are instructed to discreetly assign local *Cou-clib-clans*. In the following months, the number of destructions increases in many locations across Europe, not only in libraries but also in the homes of library users. Hans Haas' entire studio is lost, as are the homes of the other families who left with the Haas family.
In Megalissipo, the attack on the Paulo Demeester Library is relatively limited. A raid does take place, but it only results in the destruction of furniture and no book burning. The family is naturally relieved, but questions remain. Why were they relatively spared? Are the Mestre sons involved? Or is there more to it? Meanwhile, it's clear that none of the *Bloomcamp* condominium was in any danger. Within *GNet-Z* there a growing consciousness that intellectually interesting places are the primary targets. By poor ignorant people AND arrogant rich ignorant people?

Meanwhile, the Windsor Condominium is furious about the approach of EuroCentre and EuroSouth. They handled the situation poorly by only attacking Intellectual Centers. Once again, it appears they acted out of self-interest and not in the best interests of the power they stand for, *Bloomcamp*. The underlying problem, of course, is the increasingly unsustainable overpopulation, which manifests itself particularly in the largest Megapoleis. Food shortages are frequent. In certain districts, water can be unavailable for days. The rural population of Ignorants, seeking to escape the forced labour local leaders employ in exchange for personal enrichment, exerts great pressure on the borders of the Megapoleis. Disinformation is no longer as effective as it was in the first half of the century, when climate change, enrichment, and the erosion of democracy were ridiculed by government leaders who could afford to act autocratically based on broken promises. When that no longer seemed to work, local governments were appointed to lock citizens in their own districts using only disinformation about epidemics. This was supposedly for their own protection.

Meanwhile, the *Bloomcampers* in their luxurious condominiums were only concerned with further enriching themselves. The least ignorant members of the Central Government naturally saw what was happening and how further enrichment of the *Bloomcampers* ultimately resulted in the impoverishment of citizens from the central parts of the megapoleis in the Northern Hemisphere. In the Southern Hemisphere, entire areas became virtually inaccessible due to natural disasters, terrain devastation caused by mining, while many highways and railways quickly became mere memories. The systematic travel ban acted as a kind of economic lull. The entire tourist industry collapsed from the 2040s onward. This further accelerated the process of concentration. The leaders of the Central Governments, however, continued to want their own share of the pie. The surplus of poor people had to be eliminated. Ideally, *Bloomberg* numbers -2 to 3 (*see annexes*) were to thin out as much as possible. Group 4 is the ideal group to provide workers for those activities that cannot be fully automated. Groups 5, 6, and 7 are dangerous. Most of the Knowers belong to them. *Bloomcamp* needs them, but the Central Government bear the greatest burden. This is mainly due to the Charter Groups and the growing group of Knowers joining *Ignarysis* Researchers and *GNet-Z*. The Great Government does not have complete control over the *Cou-clib-clans*. Some Clan members have become too powerful themselves and easily manage to enlist other groups of Ignorants, resulting in indiscriminate destruction. Moreover, there is a problem with the Knowers who *Bloomcamp* still needs for her plans. After surviving an attack, they often disappear to unknown destinations protected by *GNet-Z*. Only in the Middle Kingdom does the situation seem to be under control.

The Windsor Condominium is contacting all leading condominiums in the northern part of the Vineland continent and in the Waçúm areas. It is time to implement a long-secretly prepared plan. Most of the Central Government will disappear, and a small group of

narcissistic *Cou-clib-clan* leaders will emerge as Central Leaders. They have been told that if they perform their duties properly, they will be given a place during the exodus to *Elysium*. The work is to decide which districts, Polis and communities are to be completely eradicate in the next ten years using viruses and mechanical weapons under the direct supervision of *Bloomcamp*. Other segments of the population will receive emigration orders to the Moon Base, Mars, and Ganymede. Operation Planet Cleanup, or OPLACLE for short, will begin in early 2093. Operational control will be in the hands of both *Sequoia* and *Komarovo Condominium*.

In the *Sequoia* Condominium, the Muscle Fund and Azos Fund executives have connected with the Brandad Fund ones in the Windsor Condominium. These funds will cover the travel and accommodation of personnel transferred from the Moon Base to L3 and L4 in the coming years to build the infrastructure needed for the project *Elysium*. Other funds will be used for a more limited program to produce space capsules that will carry out the planned emigration.

For now the *GNet-Z* is unaware of the momentum it will experience once OPLACLE fully starts. Members of the group have had a thorough discussion with the cooperators who shaped *Última Rosa*. They are providing suggestions to guide the development of Paradise. Chinua and Kwame Zoungrana are both helping to develop the neighbourhood organisations that will welcome the Walking Books after they transfer from the Bukoba community to Paradise.

After the summer of 2093, Fernanda receives official notification that she will be awarded the 2094 Fields Medal for her entire work since tackling the Wightman axioms and the subsequently developing mathematically her ideas regarding the Casimir effect on the Alcubierre propulsion system. Physicists in general and astronomers in particular, as well as the engineers working on local

space programs are convinced that she had given them the key to make *TWIST*-propulsion possible. With Mestre's Theorem, she fundamentally bridges the gap between theoretical and applied mathematics, and that is ultimately decisive in awarding the medal.
As four years ago the medal will be awarded in Megapple. Fernanda has agreed to attend the ceremony in person. It's an opportunity to see her sister as travel expenses will be covered by the University of the Bradin District. The journey will be by boat directly from Megalissipo.
During the crossing, she meets several young researchers in various fields. Among them there is Professor Clésio Teotónio. Despite his young age, he is known as an authority on comparative studies of utopian literature and science fiction. He himself claims to be post-Levitasian. He is a member of the Society for Utopian Studies. Bloomcamp has long since stopped funding literary studies. However, the Society does have some modest funding and awards. He himself received the Eugenio Battisti Award on the centenary of the prize's establishment for an article he published '*Why Bradbury Books must be burned before Counter measures for Culture and Library Clans get to read them*'.
Fernanda hesitantly asks him whether or not he defends book burnings. Clésio laughs and replies that he's since discovered that the ironic and provocative title of his article often raises such doubts outside the community of literary scholars. He asks if Fernanda knows who Ray Bradbury was. When she shakes her head, Clésio Teotónio tells him that he wrote the book Fahrenheit 451 about a century and a half ago. Book burners play an important role in it. To defend culture against these attacks, several people decide to become wandering libraries. When Fernanda looks at him in surprise, Clésio says: "Exactly. The connection with the *Walking Books* we're hearing more and more about these days is abundantly clear. During the period in which Bradbury wrote the book, there was a kind of witch hunt in the Northern American states against

anyone who took a critical stance against the establishment. Bradbury then fantasises further, speaking of a totalitarian society in which books are systematically destroyed. We currently don't know how much the *Cou-Clib-Clans* know about the Walking Books, hence the title of the article. To protect many Charter Groups, I would say that the less those aggressive Ignorants know about this, the better. In the meantime, such books can be of service to those who establish learning communities with Ignorants as eye-openers to what's happening today.

"You are too late to hide the *Elysium*-film inaccessible to the *Bloomcampers*," one of the table companions remarks. Fernanda almost chokes as she hears the name *Elysium* once more here at the table.

"*Bloomcampers* are not Ignorants... perhaps they had *Elysium*-project set up before we even thought something like this was possible."

Fernanda hesitates for a moment about whether or not to talk about the implications of her work. Ultimately, she decides not to bring it up. She still has doubts about the truth of everything Fernando Ngô says, and her brothers remain very vague. She would like to know more facts first.

A few days later, Fernanda and Joana embrace. They haven't seen each other for almost four years, except through video calls. Joana was allowed to meet her sister at the ocean liner's terminal. They hold each other for a long time.

When Joana finally lets go of Fernanda she says, "I only now realise how much I missed you, sister."

Fernanda nods. "Me too. Please say you'll come back to Megalissipo with me, or I'll go anywhere with you."

Joana smiles: "All in good time. Now, maybe we should try to catch the Northeast RESULT connection." Half an hour later, Fernanda looks into the carriage and says: "Is that really a RESULT connection? This is more like the overground we have in Erebúm."

“Megapple is very large. Megabelgium is a provincial town compared to this Megapolis. That’s why there are RESULT connections within the polis. Don’t forget that Megapple has a large concentration of high-ranking officials who can move freely between districts. Moreover, there are several nearby *Bloomcamp* Condominiums that also have a customised schedule of exclusive RESULT connections.”

“How many condominiums are you talking about?”

“Let me think for a moment. Close by, there is the StamWalk Condominium. Then there’s the LongGreenIsland Condominium and the Scarsdale Condominium. A little further on, you’ll find the Woodstock Condominium. Even further out, of course, is the Thurboro Condominium and the Potomac Condominium near the installations of the Central Government of the United Northwest Poleis. There are others, but those are the main ones. Those condominiums are quite sparsely populated these days. Anyone without a Bloomberg 9 number is advised to move to the luxury districts like the Central Park District, East Greenwich District, Lexington District, or the Newton District, which is not far from the Cambridge District. Almost all Bloomberg 9+ have left or are planning to leave for the Sequoia Condominium on the West Coast. We’re driving to the Newton District now, where we’ll take the overground to our house.”

“How's Elton doing? You’ve been living together for almost four years now. Still no desire for children?”

“Elton is busy with his thesis. Did you know that he is publishing articles in *Ignarysis*?”

“Did you talk to him about *Ignarysis*?”

“I just gave him a hint. His research deals with demographic history in the twentieth and twenty-first centuries. There are no funds for that. But *Ignarysis* has an option to post Pay-per-View articles and apparently there are in the *Ignarysis* community quite a few historians or sociologists who are interested in Elton’s work and are

willing to pay to read it… so…"
"And you still work at the virus and vaccination institute?"
"I'll tell you more about it in the next few days," Joana says, her gaze drawing Fernanda's attention to a passenger who seems to be mindlessly observing the passing landscape through the train window.

When they enter Joana and Elton's apartment, he's waiting for them. He greets Fernanda warmly and says he's very happy to finally meet the carbon copy of his partner. Fernanda replies that she's also happy to meet him, though his comment isn't exactly original. Both sisters laugh. Joana then says, "We stopped counting that comment when we heard it 1,000 times. We were 11 years old then."
"Yes," Elton replies, "it seems to be a general phenomenon that as social animals we often react in the same way to a given phenomenon or situation."
"Is that one of the aspects of your research?" asks Fernanda.
"I'm primarily concerned with identifying trends in responses to certain structural or natural phenomena," Elton answers. "How is it that, in less than three generations, the Ignorants have become the vast majority of the world's population? I don't think that's solely related to the school model. Internal numbing mechanisms play a role, and they emerge in large segments of the population. This is consistent with Sapolsky's research in neuroscience."
"And that is?" Fernanda looks at Elton questioningly.
"In the first half of this century, Sapolsky provocatively re-raised the question of free will. He didn't turn it into a theological or metaphysical discussion, but based it on biology, neurology, and the ongoing evolution of unraveling the genetic makeup of a living being. Over the past thirty years, many biologists and neurologists have continued this line of research. In psychology, the study of responses to certain stimuli, of course, still occupies a prominent

place. All things considered, you don't need to know much to arrogantly turn large groups of people into slavish followers. There are countless examples of this throughout history. The intriguing thing is that we may not be able to do much to counteract a kind of, let's say, programmed behaviour. The only thing that seems possible is to work on a form of reprogramming."
"Like with Charter Groups," Fernanda notes.
"For example with the Charter Groups," Elton agrees. "Perhaps. But there have been previous attempts along similar lines throughout history, and they were never developed on a large enough scale to truly observe the results. Usually, there's a very quick backlash from those who set up mechanisms that promote the numbing. Furthermore, a characteristic of critical thinking is the lack of consensus. Dogmatic thinking imposes consensus. But that actually reinforces the numbing mechanism. Moreover, property and power play a major role. This is abundantly clear today, thanks to the extensive ignarometric sociological research. That's why I closely follow the debates, the tensions, and the way in which proponents of direct democracy deal with consensus and rules."

Three weeks after her arrival at the Cambridge District, Fernanda attends the gala that accompanies the Fields Medal awarding. After the official ceremony, the attendees arranged themselves into small groups at the now-cleared tables. Joana and Elton introduced Fernanda to Gerald and Henry Pax, as well as to Bertrand Fox and his mother, Alda. They are unable to engage in genuine conversation. Circling guests continually interrupt them to congratulate Fernanda and ask interested questions about her research. Joana admires Fernanda and how she manages to explain the essence of her work in just a few sentences. Most of the attendees are mathematical whizzes but have little or no familiarity with her field of expertise.
The constant interruptions result in Elton and Joana inviting the

Pax and Fox families to their home for the following evening.

Gerald Pax tells Fernanda he knows their grandmother Greta from conversations from the *Hortublic* times and in connection with direct democracy and *Zafonis*-groups.

"*Hortublic*?" Joana and Fernanda ask simultaneously.

"Yes, when Alexandra's parents and your grandmother published in *Ignarysis* about the Library Houses in Iberia, we came into contact. We had several local Dewey groups here who were looking for inspiration in direct democracy. Then we had our meetings in the *Hortublic*, a virtual community. I actually got to know your grandmother through my conversations with Inês, Sérgio, and Alexandra N'Kondo. We had a special place for young people to meet back then, when the district organisation of the Megapoleis was emerging and we felt increasingly closed in. *Hortublic* no longer exists, or rather, it has been completely absorbed into *GNet-Z* just like the Ignarysis group."

Alda Fox then asks, "Do you have any news from the *Walking Books*. In recent months there have been reports that work would be done on the reception in the Alkebulan continent."

Gerald replies: "You know our family is thinking about establishing at the Moon Base. During our video calls, which the Hunt community often participates in, we learned that there is a well-developed site near the Bukoba community. There was consensus on the name *Paradise of Books*. We provided part of the electronic security of the site. According to recent information, the first groups of *Walking Books* have now arrived, and they are busy storing and recording the information they brought in.

Fernanda looks interestedly at Gerald and Henry. "Are you really planning on going to the Moon Base?"

"It might take another year or two, but we've already made the decision," Henry replies. "There are some pretty important plans to build new bases in the coming years, considering possible

population movements beyond Earth. But you should be aware of that, right?"

"I don't know exactly what I'm aware of," Fernanda notes. "I suppose you're thinking about our theoretical contribution to achieving *TWIST*-propulsion. That's completely unsuitable for lunar travel. But for travel to Mars or Ganymede, that would naturally be a phenomenal breakthrough. Yet, engineers don't expect any real development in the coming decades.

"Look," says Gerard, "in our engineering community we are more or less convinced that no one in Bloomcamp is interested in putting a relay station on Lagrange 3. We think that the mathematics you are working on, Fernanda, will be used more quickly to improve quantum computer-driven electronic intelligence than for the *TWIST*-propulsion that ultimately remains almost as hypothetical as *WARP*-propulsion, at least for human engineers."

"Human engineers. Are there others?" Alda Fox asks, surprised.

Joana laughs. "We all have our fantasies about the Hunt family and its connections. There would be non-human *WARP*-specialists somewhere… Although they are undeniably our kindred spirits, that whole family can sometimes be even more closed than *Bloomcamp* itself."

Gerald then continues: "I was genuinely surprised that your well-deserved Fields Medal was linked to this and not to the way you tackled the mathematical rewriting of quantum field theory."

"Rewriting is a big word," Fernanda smiles. "Our small team simply helps to handle somewhat better anyons and thus give the topological quantum computer a boost."

"Right, if that was your original interest, well that's the only real interest of *Bloomcamp* too. To build a complex space city that would house some 40,000 people, all belonging to the moneyed elite, without also having to accommodate an army of human engineers occupying positions intended for that elite, highly advanced electronic intelligence is absolutely necessary. Perhaps the fine talk

about futuristic dislocation was simply part of the widespread disinformation, also for researchers."

"Does that mean that the rumours of mass emigration due to planetary degradation are just rumours?" asks Fernanda.

Now Bertrand Fox joins the conversation. "Don't be alarmed by what I'm about to tell you, Fernanda. The others here already know something about it, but this may be new information for you. My father here is part of a group of people who have been studying viruses since the first major pandemic of this century. He voluntarily resigned from the research team he was associated with, when he noticed that the biological warfare field was expanding and that targeted research was being conducted on the conditions for selective contamination."

"Selective contagion through epidemics… is that what you mean?" Fernanda asks when the meaning of Bertrand's words sinks in.

"Yes. It's not about secret agents introducing viruses or anything like that, but about causing an epidemic that kills a certain group of people within a population."

"Something like only killing the poor, or only the Knowing, or only people with red hair," Fernanda says with a uncomfortable laugh.

"Exactly," Ferdinand replies forcefully. "We have extensive experiments developing selective viruses that can act on specific DNA chains. This began when we received confirmation of a link between the SARS virus and certain Neanderthal genes in the genomes of individuals. Now, a pandemic that specifically targets such genes would be too broad-based. In this specific case, there would be more victims in those parts of the world where the concentration of Neanderthal genetic material is greater, namely in parts of North Waçúm and Vineland. The idea was too tempting for totalitarian autocrats and powerful figures not to pursue it further."

"So it's a kind of general search for the ultimate murder weapon," Fernanda concludes.

"One murder weapon among others, I'd say," Gerard notes. "You

can't forget that there are also ultimate chemical weapons, not to mention the weapons that physics provides us with. Think of electromagnetic waves, high-energy particles, and so on."

"Now all these weapons cover too broad a spectrum, or, to put it in military terms, there is too much collateral damage," Ferdinand continues.

"Dividing the population into districts based on the established fear of pandemics creates precisely the opportunity to reduce that collateral damage," Bertrand continues. "It's the sublime reasoning of any aspiring psychopath. In practice, we currently have sociologically homogenised districts in all Megapoleis, filled with the poor and the ignorant, on a global scale. Consider viruses that specifically affect certain genetic characteristics of the people living in such districts. You just mentioned people with red hair. If you bring all red-haired people to a single district and then unleash viruses on them to which they are genetically susceptible, with a strict ban on contact outside the district, you can limit the collateral effects. Any non-red-haired people with the same genetic vulnerability to those specific viruses will be barely affected."

"Do you mean what you say?" Fernanda still looks around the circle in disbelief.

"Yes, my child," says Alda, "we are convinced that the whole story that is being spread among the Knowers by the *Bloomcampers* relating they are preparing major emigration projects, is primarily about having scientists and researchers on board. When burdened by moral pressure they abandon more easily those projects, as my husband did. Of course, as soon as he resigned, our family faced increasing pressure to change districts. Naturally, we've had far fewer digits available since then. Bertrand took his father's place for two reasons. On the one hand, this has reduced the pressure to move, and on the other, we remain partly informed about the *Bloomcamp*-plans now that we know in which direction we should look for information. But now Bertrand has also reached his limit.

Officially he requested to take the TransOcean to Megalissipo and from there travel to Bradin to join a team searching for viruses to eliminate *Rhesus*-negative carriers. There are also advances with various viruses that selectively attack the immune system. He received permission to travel, which means he is still fully trusted. We have provisional permission to travel with him to Megalissipo which we are not allowed to leave until Bertrand returns from Bradin. But we do have to finance our own travel. Of course, there are checks on how we obtain the necessary digits so the friends who helped us are now also under increased supervision.

Joana looks at her sister: “And now the good news for you. Elton and I are also going to Megalissipo, on the same boat you are returning on. I can tell you today what I didn’t tell any of the family when you were so worried a few years ago about my approach to the Local Government. I was contacted by a part of *GNet-Z* of which a teammate of Ferdinand is in charge. The intention was to gather as much information as possible from the local government, including what was happening centrally. We thought at the time that we could get other classified information through our Euro-Brussels brothers and that was the case. But I wasn’t supposed to inform you or the rest of the family of anything. Officially, it had to appear that I was gathering information for the local government. And my official ‘spy’-visit here was to infiltrate the local *Ignarysis*-group. I’d say my plan was pretty successful. I even infiltrated Elton,” she says with a smile. “But now something went wrong. I thought I had sufficient cover to provide a plausible explanation for why I supported the Fox family in their journey. It was supposedly to not arise any suspicion among *GNet-Z*. Apparently, there was a leak somewhere. I’ve been shadowed almost constantly ever since.”

“The window viewer on the RESULT train,” Fernanda nods thoughtfully.

“For example. So, dear sister, we have decided to move to Megalissipo. It remains a kind of double bluff. I wrote in my last

report that the change to a more centralised administration is a good time to develop a new information circuit. Although it is suspected that ultimately I do not work for *Bloomcamp* there's still no absolute guarantee of work. But maybe Elton and I won't even get the chance to cross the ocean later."

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Hans and his wife have already covered quite a few kilometers today when they enter the community center they share with the families since they arrived in Megasul a few months ago.

Two houses still stand on the grounds of *Mas Du Petit Jean*. One is home to the descendants of the original owners, who came from the former village of *Aigues Mortes*. Other families moved away during that time, including Hans' father's generation who refused microchip implants and to be moved to a megapolis. The other is inhabited by Ignorants who came from across the Alps. The common language among the various groups is a mix of French, German, and English. The refugees from MegaBelgium Kust are currently trying to get their children or grandchildren to speak Dutch, but that's not easy.

Today most of the area is uninhabited except for a small *Mas* community. The Haas family is happy to have switched the North Sea for the Mediterranean. They live closer to the sea than before, but there are no real roads in the entire area. A network of footpaths runs between the salt marshes and mudflats and the still-used salt pans. Most of the Ignorants living here spend their time mining salt. The younger people often travel to the coastal strip, where they primarily gather mussels, oysters, cockles, and bean clams. They exchange their produce twice a week for basic food. This barter is managed by two local lords. Their servants usually come with horses and baskets.

All in all, the refugees staying here aren't doing too badly. The Ignorants who come from the German territories bring stories of

prisoners in farms. These are usually walled or fenced-in areas from which neither people nor animals escape. Some of these farms employ armed overseers who don't hesitate to shoot anyone who tries to climb over the fence. One of the men Hans sometimes talks to lost his wife and children while escaping. Among this group of Ignorants are also a number of orphans who are in the care of those who took them in during the escape. None of the residents of the *Mas* have a microchip, and therefore no one has *digits*. The group lacks the knowledge to organize as a cooperative community but generally speaking, the various *Mas* houses are not particularly hostile to each other. The original residents train refugees who wish to work in the salt pans. The coastline is more or less divided so that those who pick seafood don't constantly clash. Piet recently started dating Helga Flieher who is from the Alpine region and is staying here with her parents and sister. Helga's father is a carpenter. Both families have decided to look for a suitable vacant house near the *Mas Du Petit Jean* to move into together. Hans and Helga's father would each like to have a small work place. Furthermore, there should be some land around the house so both families can start a vegetable garden together, for their own use and for barter.

There are few craftsmen in the entire region capable of repairing electronic equipment, so Hans quickly gained the trust of the two local Lords with a few repairs. Immediately upon their arrival, he unpacked his tools and assembled a solar panel generator to provide the necessary energy. Flieher Senior also uses that energy.

Once they've refreshed themselves at the freshwater well, they seek out the rest of the family. Hans asks Piet to fetch Helga's family as well. They have big news, after all. About an hour's walk from the *Mas*, they found what seemed like a suitable house two weeks ago. According to the relatives of the local residents, it hasn't been used for over 25 years. It needs a new roof and there's no power supply. But there is a freshwater well and behind the house lies a hectare of

land high enough not to flood if the *Petit Rhône* rises too high. As a precaution, Hans spoke with the two local Lords today. They have no objection to both families using the house and its immediate surroundings. It is also stipulated that any services the craftsmen provide to the *Mas* residents may only be exchanged for salt, and that the two families will not mine salt or gather seafood except for their own use and only on the shore of the land adjacent to the house. The two families make arrangements to use borrowed horses to transport the necessary wood for the new roof. They will also salvage roof tiles from abandoned ruins. Meanwhile, Hans has taken on a job for one of the Lords to install electronic security at his house. In return, he receives manual labour from two farmhands to restore the house and permission to recover materials from the abandoned villages under the Lord's control.

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In the Windsor Condominium, no one cares about Hans Haas families, German Alpine residents, or local small-time barterers. Even the Lords are well below Bloomberg values. They can be useful in supplying some MegaSul districts with products and not bothering anyone else.

No, in Windsor, the two spies investigating Fernanda Mestre are in one of the condominium's many first-class restaurants, commenting on the reports from the latest Fields Medal Gala. Fernanda Mestre's presence makes this Gala a Matter of Interest, not just for the Vineland governors but also to *Sequoia Condominium,* Erebúm and *Windsor Condominium*. Ultimately, Fernanda comes from Iberia.

The Windsor spies are angry at the nonchalant approach of their Vineland colleagues. It remains unclear exactly what role Fernanda's sister plays. Last year, they were very excited that the reunion of the two sisters would give them more insight into the way the *Ignarysis* group works. Furthermore, they were also interested in whether the blunders in the attacks on Knowers in

various Megapoleis, as is sometimes said here, led the Mestre clan to dangerous actions, or even worse, to flee. Then there's the story with Fernanda's brothers. Who do these two really work for?

What is particularly causing comment is the increasing knowledge that the Mestre clan has regarding the refuges. Even now that *Paradise of Books* turns out to exist effectively, no one can get the correct location. The electronic shields of that Hunt community remain very effective. Had the Vineland colleagues done a better job, Joana's apartment would have been bugged. The proximity of the Fox family would certainly have provided interesting data. The only thing that is certain is that groups of Knowers are travelling to *Paradise of Books*. Nobody likes to see here a large community of Knowers beyond the control of *Bloomcamp* at least not during the construction years of *Elysium.* They ask for the bill, after what one of them casually put his arm against the biller the *digits* to be transferred to the restaurant owner. They then leave the premises.

At the table a little further away, Dakari Cheboi sits lost in thought. He has recently been confirmed as a Bloomberg *Value 9*. But his thoughts are about the Knowers who choose not to be persuaded to work for *Bloomcamp* and thereby lose many privileges. For these people, independence and critical thinking are higher values than enrichment. He consulted the database. For the past two decades, practically the only way to climb the Bloomberg Value hierarchy has been to have advanced studies and funding for research related to Elysium or other matters that concern the 11-values. And yet, many Knowers seem to decline. What drives them? Dakari thinks of his great-grandfather. That was an arrogant, self-made man who had taken advantage of the diamond trade in what was then South Africa to establish himself in London. The three generations that followed only became richer, capitalising on the snobbery of the large owners who, among other things, emphasised class distinctions by using natural diamonds instead of synthetic ones. The increasing number of 10 and 11 numbers has further increased

the diamond's value. However, within his own family, ethical objections are growing to continuing to play around in this separatist world. Moreover, his children are appalled by the idea that the future of their luxurious life lies entirely off-planet. Emigrating to a space city doesn't seem very appealing to them. Aren't they wealthy enough to find a place on Earth where survival is still possible? Would that be possible? Could *Paradise of Book* be an option? That evening, Dakari speaks with his wife, son, and daughter about what he overheard during lunch at the restaurant. They agree to fly to the *Nougaro* Condominium, where they have a residence near the aerospace companies in which they hold shares. They depart by helicopter to the hangar at Heathrow where their private jet is always waiting. The next morning, they land at the *Nougaro* Condominium and enjoy a leisurely breakfast in one of the charming cafés.

There they discuss the rest of their plans. To have any chance of gaining entry in *Paradise of books*, they may have to break their traceability. Dakari has long since secured large portions of his real estate holdings against any form of mining. A notarial agreement was signed stating that no operations may take place on his land until 2150. He is not alone in this. It is a common strategy employed by other 9th and 10th-numbered individuals to increase the value of their lands in the future given the increasing scarcity of resources.

From the *Nougaro* Condominium, he arranges the purchase of a plane with a maximum occupancy of 14 people, adapted to land on unpaved runways and water. He also has groceries and electronic equipment shipped to Megalexandria by RESULT freight transport service. Once everything is arranged, he thinks the time is ripe to contact an old schoolmate whose father always declined to live in a condominium. When they parted ways, they each made sure to have a one-to-one connection via an avatar platform.

The Three Spots (2095-2099)

Kwame Zoungrana looks with interest at the group of hikers arriving at *Paradise*. They were able to recover from their respective journeys a few days ago at the Bukoba community. Most of them covered at least the last hundred or two hundred kilometers on foot. The Hunt community and the *GNet-Z* technicians stationed at the moon base have developed a technique so that the Bukoba community and *Paradise* cannot be discovered. There is a permanent electronic illusion net that recreates the surrounding landscape. What lies beneath this net cannot be scanned by any form of radiation. But the illusion capacity is not unlimited. It can only be obtained as a dome in the form of a longitudinally cut ellipsoid with the ground surface as intersection plane. However, the axes of the ground plane should preferably approach a ratio of 1:2 and the surface area of that ground plane should not exceed 350 km^2. When constructing *Paradise* this was taken into account. The area is currently about thirty kilometers long and twelve kilometers wide. The length and depth of the Bukoba community are slightly smaller. Even an elongated shape over a narrow strip of road does remain below the maximum surface area, it creates a rather unnatural illusion because too little variation can be introduced.

Over time, illusion nets have been constructed in many regions between the tropics to mislead *Bloomcamp* spies as much as possible.

As of today *Paradise* is officially in use. While the first two hundred residents are settling in and the reception team is preparing everything for the *Walking Books* to store the information they brought, Kwame Zoungrana contacts the engineers at the Moon Base as agreed. He reports the safe arrival of the first group of *Wanderers*, consisting primarily of computer scientists and physicists, supplemented by a small group of social science

researchers. This is the information, Gerald had given to Fernanda in Megapple.

That same evening, Gerald's avatar receives a message from a second long-unused avatar. He and his classmate created both characters with the intention of eventually enabling one-on-one contact without interference from others in a private room should either find themselves in a dangerous situation. Tensely, he lets his avatar enter the chat room. Dakari's avatar is waiting for him.

"You don't know how happy I am, we were crazy enough when we were adolescents to dream up doomsday scenarios and act accordingly. How are you, my old buddy?" Dakari begins the meeting.

"More than thirty years, isn't it? When your father decided to move you to that select condominium."

"You continued to live outside the walls, my friend."

"And you. Are you inside or outside walls?"

"Let's say at the moment I'm standing on the narrow wall, precariously balanced. The inner wall has begun a large-scale operation. Have you heard of OPLACLE?"

"OPLACLE? It sounds like the ingredients of some greek myth."

"No, my friend, it has nothing to do with a greek myth but rather with villainous deeds. OPLACLE stands for *Operation Planet Cleanup*. The *Bloomcampers* have designed a Machiavellian plan to reduce the world population without endangering themselves."

"I know compulsory emigration is being considered and some kind of sanctuary for the rich is being created."

"You probably mean that sanctuary called *Elysium*. But there's little talk of emigration. It's rather about liquidation, my friend. Plans are underway to exterminate large parts of many Poleis, like exterminating vermin."

Gerald turns completely white when he hears this.

"Are you sure about this, my old friend?"

After overhearing a conversation that wasn't meant for me, I started gathering information on my own. And I'm so sure I've secured our belongings and officially moved with my family to another condominium. Meanwhile, we're ready to go underground, to disappear. Within the walls, you regularly hear messages about some kind of underground network supposedly maintained by intellectuals. Do you know how we can get in touch with them?"

"Outside the walls, we hear about this too. Did you know that gradually all forms of education and training disappeared except for some manipulated basic instruction? You and I had parents who had long foreseen this, and they chose a possible way out for themselves and their children. It never really surprised me that the Cheboi family would one day disappear. That's why we were already preparing for this conversation, right? Did you know that large groups of completely ignorant people are roaming around most poleis? The *apartment cat theory* worked for a while, but today there are too many poor people with nothing to lose who primarily turn against those places that could help them transcend their own ignorance. But the manipulation by the Great Government is immense. Personally, I already suspected that *Bloomcamp* played a role in this, but that the ultimate goal is a kind of mass extermination of large segments of the population... that's bad. And yes. There seems to be a group of intellectuals who continue to resist the stupidification of the population. They primarily use learning communities for this. If you get the chance, look up some information about Charter Groups and *Ignarysis*."

"For now, I can't look for anything other than a safe haven for my family. I have a private plane. There are supposedly some alternatives in the Alkebulan area between the tropics."

"That's possible, yes. You could use the Nile as a guide and perhaps even as a waterway. There are obstacles, but perhaps you can reach the Butiaba community. If you're considering making the trip, let me know beforehand so I can send you a small travel gift."

Dakari understands his old school friend Gerald knows more than he's saying and doesn't want to reveal too much even during this secure avatar conversation. When he receives the electronically secured miniature communication device it comes with precise instructions. Near Megalexandria, he buys a riverboat to transport his goods. He follows the precise instructions to have chips removed and for shift changes to operate the boat while his family will travel by seaplane and stop at all the locations where shift changes are required. Forty days after their departure, they arrive at the Butiaba community, to whom they donate the boat. After this forty days, the family implants stop working, meaning they officially disappeared in Megalexandria. There, they can fly the slightly 400 km overland in two hours. After the first flight with the family and basic equipment, Dakari and Musa make six more flights until all the equipment they brought is in *Paradise*. Kwame Zoungrana immediately gets along well with Musa, and Chinua informs Gerald Pax that Dakari and his family have arrived safely.
Dakari immediately contacts several mathematicians and physicists. He wanted to equip the seaplane with electric motors, solar panels, and hydrogen fuel cells.

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A few hours before the ocean liner is due to dock at the Megalissipo harbour district, the Captain informs Fernanda her a video call waiting for her coming from the Moon Base. She goes to the communication room where such calls can be received. An engineer appears before her and heartily congratulates her on the Fields Medal. He then asks a few technical questions and says he also spoke to Engineer Gerald Pax about this. Fernanda remains undecided, saying she only remembers meeting him a year and a half ago when she was in Megapple. She disconnects and lost in thought seeks out Joana. She tells her about the call. The engineer's name means nothing to her. She advises her sister to try to reach

Gerald as soon as possible via the *GNet-Z* satellite connection.
Joana and Elton will be staying with Sérgio and Inês for the time being. They are overjoyed to see their daughter again in person. The day after their arrival, the entire family gathers at the Paulo Demeester Library House. There they also meet Ferdinand Fox, having an animated conversation with Grandma Greta.
Greta hugs Joana and Fernanda and says: “A year or two before your mother moved to Megaludein with her parents, I had a conversation with my long dated friend Bianca Horta y Valls in what was then called Barcelona.”
Elton looks up: “Isn’t that the anthropologist who regularly publishes in *Ignarysis*?”
“That’s her, yes,” Greta nods. “She was talking about secret research that some of her colleagues approached her about. It was related to the possibility of developing viruses that target specific DNA variations. And now Ferdinand tells me that this research has reached monstrous proportions and that *Bloomcamp* is thinking of setting up selective killing operations.”
“I will approach Bianca about it,” says Sérgio.
“Does the *Institute for Social Endemic Disease* still exist?” asks Manuel N’Kondo. “Perhaps it’s time to contact your old friend Abigail Blum. She can start a *Social Endemic Psychopathy* unit in the *Bloomcamp* Condominiums.”
“That reminds me I need to see Gerald Pax,” Fernanda says, looking at her sister. Uncle Alexandre, is the *GNet-Z* Satellite connection operational?”
“It’ll take a lot of *Cou-clib-clans* to get through before they can disable our transmitter,” Alexandre smiles. “Come.”
Fifteen minutes later, Joana and Fernanda are talking with Gerald and Henry. Fernanda recounts her conversation with the lunar engineer. Gerald looks alarmed. He doesn’t know the engineer from anywhere. Fernanda reassures him. She hasn’t answered any questions and has only referred to her officially published work.

Gerald then tells them that Moon Base 1 now has only a minimum number of personnel. Many engineers have been evacuated to Lagrange points L3 and L4. It's becoming increasingly clear that the construction of *Elysium* and everything related to it goes into higher gear. Gerald mentions the message he received from Kwame Zoungrana about the arrival of the Cheboi family in *Paradise.* What his childhood friend told him convinces him even more that the space city is under construction. But for now it is unclear how much time *Bloomcamp* provides until the emigration of the Condominiums will actually begin. That may be the time disposable to the *GNet-Z* members to protect the vast remaining population of the Ignorant and themselves from mass extermination. He proposes to Fernanda to join the other medal winners and other *GNet-Z* researchers to continue working in the research units of the funded universities until they have certainty about the calendar that the *Bloomcampers* Gerald asks Joana if she can manage to contact the new representation of the Great Board. Now that her father knows why she moved to Megapple back then, he might be able to help her to file a false report about *Ignarysis* to establish contact with the Great Government and to provide a logical explanation for Joana's reappearance in Iberia.

Elton asks Inês and Sérgio if they can help him find interesting contacts for his studies. Joana's parents recommend some charter groups involving people from Iberia. One afternoon, Elton meets in one of the *Zafonis*-library keeper Gonçalo Lehrman, with whom he has an interesting conversation. Gonçalo introduces himself as a literary philosopher. He speaks extensively about Georges Steiner, who wrote *Le Silence des Livres* at the beginning of the century. He sees elements in that text that may have inspired some *Walking Books* to a kind of return to the oral text. According to Gonçalo, the *Cemetery of Forgotten Books* never before has before has been so important. If a movement to memorise what has been written does

indeed take hold, the number of books threatened with oblivion will increase considerably. How many intellectuals are interested in memorisation and the search for a safe place will consider preserving rare works? Doesn't their rarity depend precisely on the lack of attention they receive? This may be justified because they are completely obsolete works, but should they therefore be forgotten or disappear? Or will forgetting these works lead to their emergence as new ideas, forcing a part of the human search to be repeated? What does that mean for human search? A fresh start or a waste of time? Can texts memorised in living minds better defend themselves against attacks than when they are stored solely on paper or electronically? Meanwhile, he sees the attacks of the *Couclib-clans* as a kind of ultimate barbarism Steiner talks about. Worse than attacking a book and thereby taking it to the *Cemetery of Forgotten Books* is to destroy it completely. And that barbarism is unfortunately still very much alive today.

Gonçalo and Fernanda meet for the first time at Joana and Elton's house, when they help the couple to settle in the small apartment they eventually manage to move into. Joana later recalls how they both, each with a box to unpack, engaged in a two-hour conversation about the philosophy of mathematics. They compare formalism and logicism with constructivism and even social constructivism. According to Fernanda, much can be traced back to the fundamental question of whether or not mathematics exists in nature outside humans. During the same conversation she also brought up the ideas of quantum theorists who follow Rovelli in his analysis of how time should be interpreted in physics. Joana romanticised that this first conversation between the two, physics-based or not, was the Big Bang of a timeless entanglement.

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Joana's comment might have struck a chord with António and Juan Márquez. In *Last Rose of the Desert* poetry still holds the greatest

place. António claims that lovers of poetic literature are the most vulnerable victims of the attacks of the *Cou-clib-clans*. They are the group of intellectuals who fail to resist the brutality of the attacks. On the one hand, they enjoy losing themselves in reflections and descriptions, while on the other, many of them believe that only words are worth cultivating. In every new group of walkers and refugees arriving from both the North and the South, the wordsmiths are well represented. *GNet-Z* members believe that one of the reasons for this may be related to the way Charter Groups announce *Last Rose*.

It is the turn of the Paulo Demeester Library House to host the weekly meeting of the *Zafonis*-groups in direct democracy. Quite a few participants have shown up with long distance video. The proposed discussion may play a role in this: '*Can Charter Groups form the basis for non-conditional education?'*.
Sérgio provides a brief overview of educational evolution during the twenty-first century. Until the mid-2020s, it seemed that all kinds of dialogical learning were gaining ground in educational structures. Everyone has since forgotten the first reports and studies from the international organisations of the time. Who still remembers the sometimes inspiring speeches of Andreas Schleisser? Thanks to the analysis of large amounts of PISA data he demonstrated how dialogical learning made people more critical and therefore better prepared for academic work or for success in their studies and life projects. Who still remembers how populists simultaneously continued to enforce the separation of schools for the poor and the rich? They did it cleverly. For them, authority was authoritarianism, not authorship. Drilling yielded quick results. Everyone had equal opportunities in primary school, and then it was up to each individual what they did with them. Their message was based on a few well-chosen slogans. And as soon as they gained more leeway, they capitalised on individualism and fear of others.

Through manipulation and false information, major investors destroyed initiatives that promoted dialogical learning. Training teachers, equipping schools, organising classes as discussion and debat groups — all of this cost too much money and required investments that had no immediate impact on stock markets. The massive sale of IT equipment and the rental of both physical and wireless connections had. The economic imbalance between those born in those parts of the planet where powerful monarchies had existed for centuries, unscrupulously exploiting other places, and those there born to lifelong poverty, did not diminish after the humanist reforms. Almost the opposite happened. The democracies that emerged from this, with greater or lesser local pressure from social movements, grouped together into nation-states that further exacerbated the imbalance. Attempts to transfer their model to former colonies and occupations were merely cosmetic to maintain dominance. The subsequent modern migration flows were portrayed as the new evil from which the prosperous world had to protect itself.

According to Sérgio, the pandemic benefited those who conducted such analyses. Very quickly, and without much protest, they were able to try closing schools and halting all forms of training for critical debate. They simply had to keep the population sufficiently afraid of the unknown and deadly disease, presenting home confinement as the only viable alternative. Trying out distance learning and learning platforms yielded unexpectedly positive results for autocrats and authoritarian leaders. Those with the necessary equipment could be imposed instructional curricula, resulting in a reduction in their thinking capacity. Those without such equipment joined the ever-growing group of what were euphemistically called functionally illiterate people. In both cases, there was a rise in the number of the ignorants who could be manipulated ever more easily.

The school itself became a tool for narrowing instruction during

that transitional period, until elementary school buildings disappeared everywhere in the 2060s. Geography and history briefly became narrowly nationalistic, only to be completely abandoned. Only the manipulated present-day life was important. The replacement of schools with instructional distance learning only accelerated the global establishment of ignorance.

After Sérgio's introduction, members of Charter Groups spoke. The interventions focused primarily on two aspects. Many speakers felt they needed to offer another analysis, in addition to Sérgio's, regarding fundamentalist religious practice. Someone recalled the predictions made by universities in what was then the Middle East in the mid-2020s. When narrowly religious people give their children an education limited to teaching them basic skills, this has a very rapid impact in only two generations. In fifty years, there was a shift from a quarter of the population lacking sufficient basic scientific knowledge to two-thirds of the population lacking such basic knowledge. Education returned or remained in the hands of religious leaders or autocratic governments once Megapoleis replaced most states.

Another aspect concerns the forms of discussion within Charter Groups. There is now greater awareness among those who are part of these groups. Dialogue without the ulterior motive of forcing anyone to adopt a particular position is only possible in groups based on full cooperation. Representation quickly leads to inequality in the acquisition of information. Then, general cooperation slips into dependent collaboration. This can be between the group and its representative, or between the representative and the group.

A preliminary conclusion from today's discussion it is not so much the charter groups that lay the foundation for non-conditioning education but the form of relationships between the members of a community that can be characterised as the lower left corner of the *ignarometric framework*. That is the zone where we find the least

arrogant least ignorant ideal types. Charter groups today can certainly help establish cooperative groups, but they remain hostages to those who amass power and possessions. Are people able to agree on a large scale that general self-realisation, both physically and mentally, is possible with the *use* of resources instead of their *possession* and on the basis of simple coexistence, rather than coercion?
After the meeting, Fernanda and Gonçalo briefly discuss the matter. Gonçalo suggests that it might be time to start brainstorming about the impact of the construction of *Elysium* and the migration over to there. It is also time to consider the role of the *Walking Books.*
Charter groups or other forms of dialogical education, it seems the discussion continues…

In the spring of 2095, six-year-old Sang N'Kondo Ngô welcomes a little brother. Shortly after, Sérgio and Inês become the proud new grandparents of Jacobus Lehrman. Greta is overjoyed to hold a great-grandson in her arms at seventy-six. Yet, both families display some concern. What will the world of this new generation look like? It increasingly seems as if all of humanity is locked up in a giant prison. The wealthiest lock themselves away and had everyone else locked up. Today, even from condominium to condominium, movement decreases rapidly, as there is often unrest on the outskirts of each of the luxury estates that constitute the whole of *Bloomcamp* - if the information of *GNet-Z* is correct. But in the Megapoleis, the situation is often even more depressing. In the districts that are not university districts, poverty and failing supply systems lead to increasing violence. The Great Government speaks of the return of anarchy, by which, in its own ignorance, it means aggression. The Knowers believe that effective, cooperative anarchists who reject property and violence and build peaceful communities that protect diversity and therefore the individuality of each are more likely to gather in refuges.

According to Sérgio, the cosmopolitan idea inherent in nineteenth-century utopian anarchists is primarily found among the ideal types included in the lower left corner of his grandmother and great-aunt's *ignarometric framework*. He considers the violent individuals who call themselves anarchists to be, as Grandmother Catherine sometimes put it, 'anarchist' alpha populists. Like religious fanatics, they consider the deliberate destruction of any group of people and self-destruction a noble act in defense of their own dogmas, whatever those may be. Sérgio is convinced that to be a cosmopolitan anarchist, one must possess considerable social and scientific knowledge. Therefore he sees as potential cosmopolitans the ideal types inscribed on the matrix, 'harmless anarchist' and 'anarchist omega', possessing a healthy dose of non-condescending tolerance but driven by circumstances into Ignorance. Generally, this group of Ignorants very quickly develops interesting relationships with few arrogant and few ignorant ideal types. He, like many others, *GNet-Z* members who participate in *Ignarysis* are quite convinced that the refuges and other rural communities where, in practice, personal property and *digits* turn out to be meaningless concepts are very useful. They are the foundation for learning to make group agreements within the group and among groups without running the risk of being drawn into normative organisational structures by self-righteous, manipulative leaders, driven by the will of who falsely claims to represent a population. According to him as such communities come into closer contact with each other a favourable evolution will also result in all the Megapoleis where chartered learning groups maintain their position.

While most members of the family agree with Sérgio's analysis of the ideal types, Inês and their daughters still believe he has an overly optimistic view of the capacity of rural communities to address the manipulation of the Ignorant in metropolitan communities. The Great Government' campaigns around the right to

non-participation, coupled with some gifts of goods or *digits* simply continue. Anyone who 'claims' this right continue to benefit of those gifts.

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Musa Cheboi congratulates Kwame on the birth of Jelani. A close friendship gradually develops between Musa and Kwame, just like that between their parents. At a meeting of the now almost 300-adult population of *Paradise of Books*, several agreements are made and tasks were assigned. The Cheboi and Zoungrana families volunteer to help with the practical organisation of *Paradise* in neighbourhoods where arriving walking books and interested ignorants can find common ground upon arrival. It's clear to everyone that anyone who brings literature and science in, should be able to share and process the information they've brought as quickly as possible, primarily with those who have expressed similar interests in selected heritage to preserve. Interested ignorants naturally also have diverse interests, and it's also helpful for them to find people with whose help they can further develop their interests while also receiving information about things they're completely unfamiliar with.

Little by little, a neighbourhood structure is emerging in Paradijs. The families who volunteered to help develop it are quickly establishing the necessary connections between these different neighbourhoods. A key factor is the autonomy each group has in deciding when and for what purposes they meet to make cross-neighbourhood agreements. They ensure that everyone can review the documents for all decisions at any time. Kwame and Musa, along with a few others, have taken on the primary task of being constantly available to anyone, bringing together all decisions on specific topics when clarification is needed.

From the outset, it was mutually agreed that everyone would have a basic amount of time for themselves, necessary to maintain the

family garden and for other personal projects. A provisional minimum of three hours per day was adopted for volunteers to participate in the community activities they volunteer for. When a volunteer or group of volunteers finds that they don't have enough time to work on these community projects, the entire community first seeks to recruit more volunteers. Second, they seek to automate processes where and when possible, so that volunteers can then focus their attention on other projects they are interested in.
Projects can take many forms. For example, Dakari quickly became one of the small group of volunteers who made the seaplane energy-independent from the fossil fuels the engine was still using when the family arrived in Butiaba.

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At the *Mas du Petit Jean*, it's time for a celebratory meal. The small community has recently welcomed about ten babies. Piet and Helga, one of the couples with a baby, are also being celebrated at the meal. The rest of the Haas and Flieher families are present. Hans and Helga's father have cobbled together two tandem bicycles and a tandem cargo bike. They recently acquired welding equipment in their workshop now that they are increasingly recovering materials from abandoned villages in the area. This has shortened the distance between their work place and the *Mas* to about twenty minutes. Several *Mas* residents have already inquired about Hans' help in repairing or assembling a bicycle in his workshop. They also rely on his knowledge of electronics to get bicycles with electric motor assistance running.
Piet and Helga decided to name their newborn Jan Vluchthaas (Fleeing Hare) They hope, however, that it will remain a simple wordplay on both surnames and that the house where they currently reside offers them sufficient space and freedom to avoid having to flee again. Generally, it's quiet around the *Mas du Petit Jean*, and the local Lords continue not too pushy. They're generally

only interested in obtaining the required quantities of salt extracted from the salt pans where most *Mas* residents are forced to work for part of the year. The Haas and Flieher families are exempt from this in exchange for the services they provide to both Lord's.

What is causing some concern is the gradually increasing flow of ignorant people moving through the region. Throughout Erebúm, paid employment is steadily declining. In the vast peripheral districts of the Megapoleis living conditions are now virtually impossible. Large groups of hungry ignorant people, knowing they have nothing to lose, cross the district borders into rural areas to beg or steal. Others move into the inner areas, where they often also subsist on what they can steal. The Great Governments continue to ignore who leaves the polis but do exercise repression against those within the polis who attack other districts. In doing so, they are increasingly experimenting with infecting population groups.

The Lords of the entire region under Megasul, who are responsible for salt production, chase away the migrating Ignorants as much as possible or imprison them in small colonies where they force them into labour. Those who manage to escape and settle in a rural community like that of the *Mas* are usually left alone, unless they endanger the community's peace and thus its productive capacity.

Yet the slightly less ignorant *Mas* residents aren't entirely reassured. On the one hand, the Lords of the Domain could decide at any moment that they derive more profit from their colonies of forced labourers than from barter with the free rural communities. On the other hand, the stories each newcomer brings paint an increasingly bleak picture of the growing arrogance resulting from the utter devastation of the poorest sections of the ignorant population. The Haas and Flieher families understand that if they are ever forced to move on, it will no longer be because of pressure from *Cou-Clib-Clans*, but because of pressure by completely feral Ignorants. Meanwhile, Piet and Helga do their best to stimulate their child's

curiosity.

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Arjan Chakma enters his electronic shielded office in the factory building of the Megameghnapolis port area. He checks the status of the shields. Everything is working perfectly, so he prepares a codified connection with the Hunt community and Moon base 1. He checks for interfering signals. The shield absorbs all electronic traffic from unsolicited sources. He receives confirmation from Moon base that the shield is fully operational there as well. A moment later, the image from the Hunt community stabilises. He is somewhat surprised to see Gerald Pax physically present.

“Hello my young friend,” Gerald greets him.

“Gerald, I didn’t expect to meet you today!” Arjan replies.”

“We’re putting the finishing touches on both our missions at the Moon Base,” Gerald says with a smile. “I also wanted to thank you for your help. We’re all standing here in awe of your virtuosity. When I suggested a year ago Imran’s son to help us improve the electronic shields, even I couldn’t have imagined the quality of the results. We’ve now tested the portable version in several small rural communities with limited equipment and power, and we’re thrilled. My son is full of admiration for you. How old are you now? 22? 23?”

“I’m 23, Gerald. I’m glad my contribution has solved the problem of safe accessibility to rural communities for the time being. But I do say temporarily. The *Bloomcampers* have excellent electronic engineers. We must remain vigilant. Will Henry accompany you to the Moon Base?”

At the Moon Base, someone adjusts the camera and Henry comes into view. “Hello Arjan. As you can see, I’ve already arrived. I’ve been testing your proposals for shielding a crater ten kilometers from the Moon Base. Officially, we’re setting up a storage area here to store ore from the lunar mines before they’re shipped to L3 and

L4. We already have a habitation dome here where only our chosen personnel stay. This is the first connection we are providing directly to Earth, without having to reroute the signal through Moon Base 1 itself."

"Do you have any news on the progress of the *Elysium*-project?"

The cameras zoom out in both locations to capture all meeting participants. A Hunt community technician speaks up: "From the *Sequoia condominium* a small group has left for an unknown destination. We believe they have a protected operating room. As Arjan just said, the *Bloomcampers* have also specialists in electronic camouflage. For the past two weeks, there has been a great deal of activity transporting personnel to the space relays from which the latest generation of shuttles depart for L4 and, more recently, L3. The shuttle to L3 is the fastest manned ship ever. It departs from L4 and reaches L3 in thirty days. Currently, three shuttles are operational. The first space clocks were probably installed more than two years ago, and since then, the shuttles have been flying back and forth continuously, while unmanned vehicles are also being used to transport equipment. These travel twice as fast as the manned vehicles. We don't know exactly how many space clocks are currently in service."

A lunar engineer then says: "212 lunar engineers have now voluntarily departed for L3. Officially, they are still talking about the development of a relay station bur *Elysium* is here an *Open Secret.* No volunteers have returned yet. So we don't know the exact status. One of our people is the captain of one of the shuttle craft. She brought us some images confirming that twenty space clocks are already connected. Each clock or bell can accommodate twenty people. So there would currently be room for 400 people. We suspect that Bloomcamp is directing construction crews from certain locations on Earth, perhaps from closed districts connected to Central Governments.

"When *Elysium* was discussed as a place of refuge for the

Bloomcampers top, they were talking about around 40,000 people, including children. That means 2,000 space clocks just to accommodate that group," notes a member of the Hunt community."

"That's right," says the lunar engineer. "And the information we have, is that now that the material supply is fully operational, 20 clocks are being assembled and connected per month. That will increase to a maximum of 40 clocks per month by the end of next year. According to our space captain, the shields against solar wind and micro meteors are growing at the same rate."

"Has *Bloomcamp* only invested in *Elysium*? Are the colonisation plans for the Moon, Mars, and the two moons of Jupiter completely halted?" asks Arjan.

"As far as we know, the Terraformation of Ganymede continues," says Gerald. "On Mars and Europa, they continue to build habitats, most of which are underground. A ship with specialised workers will depart for the outer planets at least every two months. They are promised the reunification of their families as soon as living conditions permit."

"There are still four lunar bases under construction on the moon and that's it for the time being," Henry adds to the information provided by his father.

Arjan looks up in dismay: "So *Bloomcamp* is busy trying to save its own skin, but there is hardly any attention for the billions of other inhabitants of the earth."

Henry then replies, "Correct. At best, they'll be able to move a few million people by the end of the century, perhaps not even that much."

"That's our calculation too," says someone from the Hunt community. "That's why it's so important that we protect Earth's rural communities as much as possible from Earth's climate disruptions and threats from space should anything go wrong with the planet's natural magnetic field. The new challenge for your

generation, Arjan, will be to make the electronic shields you're building serve aggressive forms of highly charged particles. We assume that the higher regions between the tropics offer the best chance of survival in the event of a general catastrophe. That's why they have absolute priority."

Arjan now looks even more worried. "You're talking about *towards the end of the century*". This is just five years from now, you aware of that? How are we going to accomplish all of this?"

Gerald then says, "It looks a little more favourable. We're talking about the end of the century because we suspect that it is *Bloomcamp's* goal to start moving to *Elysium* around 2101. Our models indicate that we still have about fifty to sixty years to work on solutions for permanently protecting parts of the Earth itself. Ultimately, it will never be possible to move the entire Earth's population to other parts of space within that time.

"Okay, what are the next steps?" asks Arjan.

Then follows a technical discussion. Timelines are adjusted and tasks are allocated.

At the end of the conversation, Gerald says goodbye, "Near to our next meeting, the entire Pax family will already be on the moon. Our host community is preparing for another trip, and I wish them the best of luck. We will have one more meeting together before that trip begins."

The other participants also leave the meeting, and Arjan disconnects. He joins his colleagues to discuss their next tasks.

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At the Windsor Condominium, the Bloomberg 10 are worried about the continuing decline in stock market values almost everywhere on the planet. During a crisis meeting, they analyse that consumption that is sharply declining throughout the Northern Hemisphere. The departure of more and more ignorants wanting to live without *digits* outside the Megapolis is only a marginal

phenomenon. Worse is those who do have a comfortable *digit*-position, have increasingly fewer products to buy simply because the supply channels are disappearing. The association of well known Logos with certain products has long assured high *digit*-value, artificially high for certain products that ultimately have low intrinsic value. But the products hidden beneath the logos now all come from standardised production units, almost all located in the Middle Kingdom. The owners of the better Logo-products prefer to seek out artisans who carry out repairs using materials salvaged from similar products rather than buy new ones. The food industry has almost completely collapsed, now that a large portion of agriculture is carried out in local automated units owned by rural rulers who, for the rest, force Ignorants living in rural areas to work for them. Their supplies go directly to the Great Governments, who then further distribute the goods. Some time ago *Bloomcamp* developed rules as to list Megapoleis on the stock exchange. Individuals or groups then revitalised the exchange by increasing the number of previously aggressive tenders to acquire full ownership of a Polis. This worked for a while, but ultimately, what else can one do than buy and sell Poleis, trying to inflate the share price? It's a kind of a real extension of the old fictitious Monopoly game among the richest.

Gold, platinum, and diamonds have been the exclusive property of asset numbers 9+ for quite some time, and no one seems interested in parting with them at the moment. Land is worthless unless it's suitable for mining. But even those assets are in the hands of *Bloomcampers.*

Real banks now only remain in the Middle Kingdom. Although they still have reserves of precious metals, their activities are almost entirely focused on mining for extraterrestrial colonisation, i.e., for the construction of *Elysium.* The very richest have little to do except to specify how they want their space clocks to be arranged.

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Fernando and Gonçalo invite friends and family to a party when Jacobus turns two. There's time to play with the children and tell stories.The afternoon snack ends with a delicious cake, for which Gonçalo and Elton managed to have real chocolate. Then the children continue playing, led by Sang, who is now seven. The conversation among the adults changes tone.

"In the Charter Group for children that Sang attends, fewer and fewer new children are showing up," says Alberta.

"We are also gradually seeing fewer children at the Library House, both in our own Charter Group and for the performances that your great-uncle still organises here," Inês answers.

"Elton and I recently received for the first time a message that we did not have to go to a Charter Group due to a lack of attendees," Joana added.

Fernanda looks at her sister: "Gonçalo and I are counting on you for Jacobus' education. We hope to be able to form a group with other children, but it looks like our generation in Megalissipo has fewer children."

"We ourselves are now certain don't want to have children," says Joana. "But I don't know if our generation actually has fewer children. The latest demographic figures we have available show a slightly negative overall population growth. I do have the impression that more and more Ignorants, even in our district, when they sign the Right to Non-Participation are keeping their children away from Charter Groups where participation is driven by critical analysis. I hate to say it, but it looks like the Great Government is winning this round in Megalissipo."

"In Megalissipo and in other Poleis," Gonçalo notes.

Fernando Ngô nods. "Yes, the phenomenon is spreading. According to information I have, 70% of the Ignorants in the Northern Hemisphere have already signed such a declaration."

"If those Ignorants are unaware of the existence of Charter Groups

or have forgotten that they exist, then it looks like within a generation or two the Knowers will be a rarity. For the *Cou-clib-clans* today the Knowers are some kind of evil magicians who find everything in their books to harm even the heads of government," says Alberta. "It looks like the Non-Ignorants are in for a rough time."

"Maybe we should consider moving to a rural community as well, like other *GNet-Z* friends already did. We could then organize a Charter Group among ourselves for all the children of the families we join with in such a community," Fernanda thinks.

Sérgio looks at his daughter and says, "Isn't that just shifting the problem? We agree that the growing group of Ignorants are a danger, but primarily to themselves, to humanity, and to the health of the planet. But it's in the Poleis, where the Government and the arrogant ignorants hold power over the rest of the population, that this danger continues to grow. If we all flee to a rural community, what then? We're deliberately abandoning the rest of the population to their fate. I'm not making a paternalistic comment, but the observation that if by fleeing we also reduce the opportunities for finding a learning group or a library, then that doesn't seem good for anyone."

"Even if our lives are in danger?" asks Joana.

"But is that the case for the moment?" Sérgio counters.

Greta then says: "There are no indications for another major Library attack in the very near future. Megalissipo also seems, all things considered, a less dangerous Polis for Non-Ignorants. I agree with Sérgio that fleeing today won't help anyone. I would like to add, however, that if there is a real danger, it's better to protect ourselves. After all, nobody benefits from dead *GNet-Z* members in the megapolis."

Joana and Inês nod, and Fernanda says: "So we don't run away, not right now. But you heard your wise mother, Dad! We can't rule out that we'll have to move south in the future."

Later that evening, as both sisters tidy up the kitchen while Gonçalo and Elton put Jacobus to bed amidst much cheerful wrestling, they briefly discuss their concerns. They agree to approach Alberta, her father, and his biological mother to discuss safe routes across the Mediterranean Sea with their old contacts in Megandalusalgarb. The Nile Valley is, according to *GNet-Z,* currently the best road to central Alkebulan.

The sisters might have a different opinion about that best route, if they could hear Ivan Auctor. It might just be the least bad route, Ivan thinks, as he, Sergei, and his wife, Sana, try to manoeuvre the small boat against the current as they leave the Ogujebe community with their ten new friends, who are manning three other small canoes. Just over 200 km separates them from Butiaba.

The local community explained them how to take the waterway to Lake Kyoga. It passes the Paraa community, with some climbing overland. The journey to the lake involves trading boats for tools, unless one tries to navigate the river for 200 km with a canoe on your back when encountering the rapids or waterfalls. After navigating the lake for about 100 km, they then find the river flowing from the south. After another good 100 km, they finally reach the main lake even though there are also obstacles here in the form of rapids. After that, the journey across the lake to the Bukoba community is relatively easy, as long as one stays close to the coast.

After what Ivan, Sergei and Sana have already been through, they have little desire to trudge overland. Fortunately just before the group left, they received other information from the Juba community through the *GNet-Z*.

They were advised to inquire with the Paraa community about land transportation and travel directly south, reaching then Lake Kyoga via a waterway. The route is over fifty kilometers shorter and somewhat more comfortable, especially with pack animals and a cart. Even better, they said, is to simply exchange the boat and

some goods for pack animals and a cart and use those to reach the large lake. By land one can reach the northern side of the large lake from Paraa in about ten days. There it's easy to find someone willing to make the boat trip to the Bukoba community, usually in exchange for the pack animals and the cart.
And then the day before their departure Sergei received a message from *Paradise of Books* via the moon base. Instead of traveling to the large lake by road, the group could be picked up in Butiaba… by seaplane. At first, Sergei and Sana thought it was a prank. But no, they received a message from Dakari Cheboi himself that he would pick them up along with the other *Walking Books.* However, Sergei is asked not to speak about the seaplane to anyone other than his traveling companions. It's better to let the Ogujebe community believe they'll continue their journey via Paraa. After all, that's the route most refugees take. And nobody knows how much spies know. So, instead of stopping at the Paraa community, they simply travel another 60 km up the lake.

The three are happy to be nearing the end of their journey. They set off from the Sea of Azov, some 6,700 km to the north a year and a half ago. They began their journey as a scientific expedition, responding to the increasing volcanic activity in the Eastern Mediterranean. On the Sea of Marmara, shortly after they began their journey, they also nearly met their end. Huge waves, possibly caused by an earthquake, had washed away the boat they were on with other *Walking Books.* The voyage begun with their boat capsizing. Only six people were able to reach the coast. Ivan and Sergei lost the rest of their family, and Sana was the only leftover from her family. Along with the three other survivors, they were accepted into the Dardanelles community. The other three companions abandoned the entire plan and decided to stay put. They had their identification chips removed and were added to the list of perished expedition members. Ivan, Sergei, and Sana did not

abandon their initial plan to go further on to *Paradise of Books*. They requested new equipment to reach the island, which was recently called Crete. It is now virtually uninhabited due to the increasing number of earthquakes. Shortly after their arrival, they met by a group of seismologists, some of whom are members of *GNet-Z*. Quietly, they made the necessary preparations for a trip to the Nile Delta to deploy seismic buoys. The underlying plan was that once they reached the mouth of the Nile, the three would-be refugees would have their identification chips removed. The other members of the expedition would declare them dead in a boating accident.

They had largely paid for the equipment they requested before leaving themselves with the *digits*. They had enough spare parts for a long boat trip on the Nile before removing the chips. The approximately 1,200 km between Megalexandria and the large dam was practically a pleasure trip. They traveled the upstream river in a comfortable motorboat. The journey took a month and presented no problems.

Below the still-existing dam, they traded their large motorboat for a smaller vessel and provisions. The journey from the dam to Lake Albert covered some 1,700 km of river and took them through difficult sections. Yet, they believed they could navigate up the rapids with the large canoe they chose, both rowing and using the outboard motor.

The information they had wasn't entirely accurate. Halfway through their journey to the Juba community, they were forced to leave the river. They received help from a small settlement consisting of three families of Ignorants that had exchanged the impossible life in the megalopolis for a very simple existence on the riverbank. The three refugees were their first contact in two months. They were happy to help them, as they had done with previous fleeing Knowers. They explained they preferred not to see their small community grow by anyone who didn't intend to focus on farming and raising chickens

and goats. That was time-consuming, and they believed Knowers were too impatient for this kind of work.

Sergei recalls how quickly he became living proof of this, simply because the canoe had to be taken apart and reassembled higher up. The entire overland journey to get back on the river took more than a week, and he understood the teasing of their accidental helpers all too well. Although the settlement didn't ask them for anything, Ivan decided to donate some of their tools. This would be useful to the community in helping other expected new fleeing Knowers. At their farewell, he explained that the network they belonged to currently recommended the journey along the Nile as the least difficult route to reach the shelter further south called *Paradise of Books*. Someone then remarked that everyone apparently has their own opinion about what constitutes paradise. And she couldn't imagine, she added, that books needed a paradise too.

The further *GNet-Z* information was correct. They were able to continue up the river towards the Nile's dividing line. Not long before they took the southwestern arm, they passed through a desolate area of a completely destroyed city. Here they saw with their own eyes the result of how *Bloomcamp* gradually abandoned large parts of Alkebulan to its fate after no more wealth could be extracted from it. Via *GNet-Z* Sana had already been in contact with Knowers affiliated with the local university before, some twenty years ago. The entire region, which had fallen into the hands of aggressive Ignorants became increasingly desolate. The Knowers who remained there had then been absorbed into various rural communities, some of which were part of the network. Most of them had extensive medical knowledge, and the rural communities readily accepted them. No one knew exactly where the murderous and plundering ignorants had gone. *GNet-Z* warns to avoid areas east of the Nile River, from the delta to the Gulf of Aden. Like the eastern coast of the Mediterranean, the coasts of the Red Sea and the Gulf of Aden are dangerous for travelling Knowers.

As they pass through the devastated urban area, Ivan refers to a remark of the Ignorants who so kindly helped them. It is not the books that need a paradise, but rather the Knowers and the Ignorants who want to escape the lust for power of any kind, whether it comes from the wealthy *Bloomcampers* or from the impoverished interior of Erebúm, Waçúm and Alkebulan.

Having reached the southwestern branch of the Nile, the three travellers had completed just over half of their journey through Alkebulan. According to their calculations, they were still some 1,300 km from the Juba community. Passing through a completely deserted and ruined city had made them uneasy. From then on, they traveled an average of about thirty kilometers a day. They often had to rest during the day to remain constantly alert at night. Twice, they had no choice but to stay to set traps and replenish their fish supplies.

After a month and a half on this branch of the Nile, they arrived at the vast marshland. There they found more refugees waiting for the annual rise in water to continue their journey in their shallow boats. All together, they now formed a group of thirty travellers, including eight *Walking Books*. They spent the waiting time comparing information to choose the best routes under the canals between the papyrus islands. Among those present, an engineer mentioned a project more than a century old to dig a canal along the marshland. Ivan immediately remarked that, thankfully, it never came to fruition. Although the entire region had witnessed dramatic events among the human population, such a canal might have only offered a short-lived improvement. He also told the others what he knew about his ancestors, who left their native region when, through the pursuit of profit and political blindness, the lake they lived on dried up into desert. Someone else then remarked that power, possessions, and blindness are the hallmarks of many arrogant leaders. He had memorised Ignarysis' documents and cited two linking the drastic climate changes to the upper left corner of

the ignarometric table. Sana resolved to carefully review the texts should they ever find themselves to arrive in *Paradise of Books.*

As soon as the water levels permits, the group set off on a long trek through the swamp. Among them are three animal spotters. This proves essential to avoid unpleasant surprises with hippos, but especially with crocodiles. There are no experienced hunters in the group, and moreover, only four members have a good rifle, so every precaution is required. Nevertheless, this last leg of the journey to the Juba community of Ivan, Sergei, and Sana is less challenging because they are no longer alone to set up night watch.

And then, finally, four months after they had sailed up the southwestern arm of the Nile, they arrive at the Juba community. The Wandering Books will travel on to *Paradise of Books* in the company of a couple of Ignorants who had listened with great interest to the stories about that Paradise. The other Knowers and Ignorants just join the Juba community. After all, it has regular connections with other communities that accommodate *GNet-Z* members.

The Butiaba community's landing stage comes into view, and yes… it's not a mirage. There lies Dakari Cheboi's green-painted seaplane. Dakari embraces Ivan as they meet in person for the first time. After a brief introduction, he announces that he will be able to transport all thirteen travellers at once to Paradise of Books, without them having to go to Bukoba first. Overjoyed, everyone is fast asleep once they're airborne, except for Ivan and Sana, who engage in a long conversation with Dakari. They mainly talk about the increasing pressure of *Bloomcamp* to deploy all available engineers for the monster project *Elysium.* Ivan explains that their own decision to flee to Paradise was largely due to the insane plans to pump lava from volcanically active areas and then crack it to filter out metallic ores. Information available to the geological community shows that further disrupting the Earth's crust by

deliberately reaching molten lava has far-reaching consequences, not only for the atmosphere through the use of nuclear detonations in the ground, but also for disrupting the Earth's magnetic shield. Dakari discusses the distribution of shadow numbers of *Ignarysis* to escape control. It is high time to dedicate an issue to these dangerous practices in an attempt to convince doubting Knowers to abandon their work in favour of the *Bloomcampers*. He suggests that Ivan discuss this with the engineering community led by Gerald Pax at Moon base 1 after his arrival in Paradise.

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Juan Márquez listens with growing interest to the story of the First Walking Books who came from Northern regions to *Last Rose of the Desert.* They sailed down the Baja Strait and then followed the coast to near San Juan, covering the rest of the journey using mounts from the local community. Some of the refugees had already traveled across the North American continent, from Megapple to Megangeles. Among them are two mathematicians who bring their own work as *Walking Books*. These Northern *Walking Books* expand the group of residents of Última Rosa focussing more on the exact sciences than on literature and poetry. Juan learns more about the financing of the *Elysium*-project. This has ramifications in various fields of research, and even in theoretical mathematics. At one point, the two newcomers discuss Fernanda Mestre and *Ignarysis.* Juan is very enthusiastic when he first hears about the Demeester sisters' ignarometric framework. He asks if in *Last Rose* someone brought more information or even written texts about ignarometry. Some refugees from Mega Santacatarina involved in the experiments related to direct democracy provide him with texts by Sérgio Mestre and Inês Legendre. According to them, these are the parents of Fernanda Mestre the mathematicians were talking about. Juan decided to try to get in touch with that group from Megalissipo as soon as he can. *GNet-Z* presents that

good opportunity itself. Ignarometry establishes the relationship between ideal types inscribed on the framework and various forms of social organisation. The latest arrivals from the North bring stories about the increasing arrogance of the *Bloomcampers,* for example, of the *Sequoia* Condominium. Juan wonders if there is any hope for participatory forms of direct democracy.

The developments of the next two years will have far-reaching consequences for both *GNet-Z* as for the Magister-Auctor dynasty.
The *Bloomcampers* have started a race against time to finish as is expected, the *Elysium*-project which construction began almost ten years ago, by the turn of the century. Computer scientists, including Arjan Chakma at Megameghnapolis, are developing an AI algorithm that will assemble materials placed at Lagrange points by robots, virtually without human intervention. This is especially useful for the finishing of *Elysium.* This algorithm itself is of enormous importance. The more limited group *GNet-Z* computer scientists, of which Arjan is a member have been able to reuse large parts of this algorithm to develop a closed and fully shielded system controlled by electronic intelligence that will soon be able to control all communication between the confidants on the Moon base and the three hiding places for Walking Books that are gradually being given the name *The Three Spots*. Arjan has a weekly briefing on this with Henry Pax, who can easily shield himself from unwanted guest listeners on Moon base 2.

Since moving to Megalissipo, the Fox family has developed a close friendship with Sérgio and Inês. Ferdinand continues to visit Greta regularly, and enjoys reminiscing about Bianca. He is also captivated by Greta's stories. He says she is a kind of guide to understanding the twenty-first century. One evening, he confides to Inês that he often sees Greta as a kind of second mother.
Educational activities in the Library House are gradually decreasing. The number of Ignorants who sign the Right to Non-

Participation continues to grow. The children's groups consist mainly of children from the shrinking community of Knowers who doing *Bloomcamp* conducted and subsidised research. Also the Knowers who have been in a sense suspended but still have sufficient resources due to family *digits* continue to visit the two remaining private library houses in the district. This changes abruptly in the middle of 2098. One evening, after Alexandre and Manuela have closed everything to go to Greta's for dinner, a group of black-masked *Cou-clib-clan* members put al on fire. Windows and doors are quickly and deftly blown off with small amounts of explosives, after which three figures with large flamethrowers strategically set the whole thing ablaze. The blown-open windows and doors cause the entire house to be ablaze in no time. Half an hour later, smirked city officials inform the family that the Paulo Demeester house had unfortunately burned down completely and that an investigation will be launched into the cause. For the moment, they add they don't think there was any malicious intent. Inês is furious, as are Manuel and Alexandra N'Kondo. They wonder if their cousins, who disappeared to Euro-Brussels, had anything to do with this. No one has forgotten that they had once warned Fernanda that Alberta shouldn't move into the house. Greta and Alexandre comfort the rest of the family by reminding that the original archives of Paulo and his daughters are safely locked underground and apparently escaped the devastating attacks. But of course, all the *fac simili* and materials used with the Charter Groups were completely destroyed. In Megalissipo, the *Zafonis* Learning groups now have no other space left than the university library itself. It's less suitable for working with charter groups. And two months later, that library too goes up in flames.

From the three other Mega Iberian Poles the *GNet-Z* members have been receiving disturbing reports. Apparently, the *Cou-clib-clans* have attacked libraries almost everywhere at the same time, even *Bloomcamp* funded universities. Is a turnaround coming? Is the

attack deployed by *Bloomcamp* themselves? But what's the point? Has the moment arrived when the absolute owners decided they no longer need Knowers? The destruction follows the same pattern as what was already seen in several Abya Yala poleis. Could Erebúm be next? But why the rather insignificant Iberia first? Was it a test?
By the end of the year it is for the *Zafonis* groups clearly show that the destruction was of an Erebúm nature and not just an Iberian one. There are many indications that the attacks were coordinated by the entire Central Government of EuroBrussels, with the Iberian government acting locally. Did *Bloomcamp* attack or was the whole thing a surprise for them too?
The *GNet-Z* communities find out that currently only the Middle Kingdom is spared from such devastating attacks. This brings *Bloomcamp* in again. Could the divide and conquer policy that was long used to obscure information about the use of Lagrange points and the construction of *Elysium* now also serve to protect the last production sites on Earth?

The active Ignarysis groups propose to set up within the *GNet-Z* communities a general think tank they invent the name *Convivialis Civitates* for. According to them through their divide and rule policy expressed with *Elysium* the absolute owners of the world are isolating themselves more and more. And apparently they are doing so off-planet, perhaps in an attempt to protect themselves from disasters, accidents, epidemics, and whatever else their lust for power and possessions has brought about. This increasing isolation is a ray of hope for certain Ignarysis members. Is it possible to begin to imagine an evolution in social interaction in which wealth built into hierarchy no longer exists? The proposal to rename the think tank *Convivialis Civitates* has to do with the Illichian *Convivial Society,* a utopia for sociologists and anthropologists.
A meeting via *GNet-Z* satellites in which some 1,500 small communities participate, primarily from rural areas, will later be

seen by Ignarysis staff as a kind of starting point. Arjan and Henry participate in this meeting along with other members of their local communities in Megameghnapolis and on Moon base 2.

“Most of us have probably been part of the *Hortublic*,” Sérgio begins. “Perhaps with that structure, we had a good basis for developing social relationships where we reached agreements without having to resort to hierarchical or representative structures.”

Arjan then says: “The *Hortublic,* Yes. My parents used it. There was a kind of general agreement: everyone assumed that individuals, groups, and states would not claim ownership.”

“If we want to work for a *Convivialis Civitas* anywhere,” notes a participant from Megasantacatarina, “then perhaps we need to work towards a general position that ownership is simply not necessary.”

“Wait a minute,” says Henry, “Here at the Moon Base, we only have communal structures. We’ve gradually developed a policy where everyone can use the protected covered vegetable gardens. There, one or the other often tries out growing new vegetables or fruits, depending on their personal taste. We regularly agree on how to arrange the growing areas so that we don’t plant plants next to each other that will hinder each other’s growth. Anyone who wants to try something new announces it, and together we look for a suitable location. We all know each other’s preferences, and we generally work together to grow the vegetables and fruits we’d like to harvest ourselves. No one needs to own anything, but the communal management of the food supply does involve well-developed consultation. We’re a relatively small group of course, so we can usually make agreements after consulting with everyone. Mind you we’re not looking for consensus; we’re simply trying to organize the vegetable gardens so that everyone can harvest what they like to eat. Only circumstances can hinder us. We’re still not manage to grow certain leafy greens in our moon gardens.”

Inês responds: “Ownership is not necessary unless someone from

the moon absolutely wants a leafy green that can only be grown on Earth. In that case you will have to pay for the transport and you need *digits* for that, so you have to own something with which you can earn those *digits."*

"In the current situation, yes," agrees another participant from Megasantacatarina. "Right now, we don't have a megastructure from which all the capital has disappeared."

"And will that happen?" asks a Megapple participant somewhat skeptically.

"It's too early to get an idea about this," says an Ignarysis co-operator from Megaparisios. "What we can deduce from the ignarometric framework is that a cosmopolitan society in which consensus is not sought, but rather a harmonious society, only has a chance in a society without hierarchical arrogance. In this respect, propertylessness is a very important factor. The other important factor is the elimination of ignorance. At the moment, the *Bloomcampers* have turned the ignorance of the world's population into a tool to profile themselves as owners of the world. The simple example Henry gave is only feasible if the community in question has good educational structures that are not hierarchical in themselves."

"Perhaps we are ready for a new form of knowledge dissemination," Greta thinks. "We will need a kind of *Illuminati 2.0* to start up."

There is a bit of laughter. Then a colleague of Fernanda says: "Or maybe a *Illuminati 4.0,* as the historical one, not te evil society portrayed by church and power, and used in tomb raider pictures. But I think Greta offers an interesting guideline here. As Knowers, we'll have a lot of work to do to re-interest the Ignorant in learning in a non-pedantic way. The Comenian *mathetics* is very distant to them at the moment."

"There is also work to be done within the still-existing community of Knowers," Fernanda notes. "Of course we realise it is impossible to know everything as Comenius advocated. But we can with *GNet-*

Z imagine a modern kind of *Res Publica Litteraria*."

Gonçalo then says: "I don't know how many of you know the work of Georges Steiner, especially his provocations regarding written texts. Steiner talks about the authority of a written text, which, I add, can quickly lead to a display of power. Written authority can only be tackled with other written authority. To come back to *Res Publica Litteraria*. If we imagine *Convivialis Civitates* as an ideal we may have to go further than that *Res Publica Litteraria* when it comes to circulating texts.

Steiner demonstrates how very different dialogue in oral form is from dialogue in written form. During gatherings like ours today, people can point out errors in thinking and make adjustments. In this way, we can work with the diversity we desire to take in account. But we can only do this because no one among us advocates property or power. But this isn't a general trend. Consider the disastrous attempts of the Socialist International just two centuries ago. In the nineteenth century, the members of its successive structures wanted to escape religious dogma. Property was challenged, but the leaders never challenged power. On the contrary, they made it the main topic of discussion, resulting in all sorts of exclusions and persecutions. It was a catastrophe, eventually resulting in a hegemonic capitalist model. Ironically, the *Bloomcampers,* those who cling most to the capitalist structure, who are now thinking of leaving things as they are and emigrate to *Elysium*."

"Oddly enough, isn't it?" a participant from a rural community hesitates. "When we talk about partnerships, about cooperation, we're always talking about solutions found among ourselves in relatively small communities. The *Zafonis*-groups have interesting ideas regarding the acute problem of democratic representation. This was completely lost due to the aforementioned possessiveness, whether it concerns goods or power. But Charter Groups whose representatives meet among themselves have worked on solutions.

The groups share the view any form of ownership is an unrealistic human construct that can therefore be removed. I do want to remind you that involving everyone in *mathetics* today, is a huge task we may never succeed in. The number of Ignorants has grown exponentially since the time of Comenius."

Sérgio nods vigorously: "It's safe to say that the exponential increase in the number of Ignorants is about in line with the increase in the world population. 450 years ago, roughly in Comenius' time, it consisted of half a billion people. 170 years later, that population had doubled. Another 120 years later, the population was four times as large. It will then take only 45 years for the world population to double again, reaching 4 billion. The rate at which it doubles has slowed, but … In 2022, after another 47 years, there was another doubling. Today, the number is closer to 7 billion than to 8 billion, but that's still 44 times more than in the time of the early Christians and over 14 times more than in Comenius' time. For 8 billion inhabitants at the beginning of our century, there were roughly 8 million scientists, or 1 per 1000. It's difficult to know what that ratio was in Comenius' time, but today you arrive at a ratio of about 1 in 2,500 due to the increasing closure of research centers and the focus of science on very specific areas. The number of Knowers today is not at all in line with the increase in the number of Ignorants; quite the opposite. To be provocative, I would argue that despite all our *GNet-Z* efforts, structural ignorance today exceeds that of the ancient empires of the East and West."

Henry grins and says, "Arjan, we'll already be working on our program to connect rural communities and the Three Lands. Meanwhile, it seems that those living in university districts in the Erebúm Megapoleis will have to consider moving to refugee camps. We're ready to help wherever possible."

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The executives of the three largest funds for mathematics and physics are meeting in the *Sequoia Condominium*. The plan on the table is to simply stop all funding to all universities and allocate the full capacity of the Muscle, Azos, and Brandad funds to the supply of materials for finishing *Elysium*. The discussions are heated. On the one hand, there are the representatives of the beneficiaries with *Elysium.* Those who want to see the entire space city operational in two years to carry out the exodus of the Bloomberg 9+ numbers as planned. On the other hand, those responsible for implementing the programs, assume that not all problems have been solved and that severing the relationship with research centers could be costly. When a consensus is almost reached regarding the centers for theoretical and applied physics that remain to be funded, one of the participants recalls a previous decision to also continue funding ignarometric sociological research. The Windsor Condominium has just reported on the increasing difficulties in Erebúm in keeping the local Great Governments themselves under control. This portends significant difficulties in monitoring population groups when the exodus actually begins. But those representing the hard line are holding firm. In the event of major unrest, the condominiums will be immediately evacuated and those areas will be cleansed by all biological and material means disposable. When someone asks if purging means murder, the chairman of the meeting answers simply: “Ultimately, exterminating the remaining population is a favour. We’re leaving because we think the planet is becoming unliveable. So we’re shortening the pain for those who remain. As a bonus, we’re reducing the total population, which might actually improve the quality of life, if you’re willing to believe environmental extremists.”

After the meeting, two of the participants who had continued to advocate for funding sociological research centers walk back to their accommodations. “This is going in the wrong direction,”

observes Marie Anne.
She is the daughter of a Bloomberg 9+ magnate who is a large shareholder in the only remaining chip wafers producer. She has always somewhat hidden her interest in sociological research from her tech-obsessed parents. Due to the strict controls on what circulates between the condominiums and the outside world, she only learned about the ignarometry-based analyses a few years ago during a visit to Megapple, and since then, she has managed to clandestinely access *Ignarysis* issues during study trips to Megapple, Bradin, and Megaparisios. She has memorised large portions of what she read and then written them down by hand in the diaries she keeps, which she never carries with her within the condominium. It's the only way to escape the all-seeing electronic surveillance.
She and her friend Carine enter a restaurant. They each take a meal from the premium food distributor and sit down.
"It's a bit crazy that killing people is just brought up as a solution to our problems," Carine agrees.
"A ***little*** crazy??? That's getting out of hand for me. I've had enough of it. I don't want to live in our luxury prison anymore," Marie Anne reacts fiercely.
Carine looks at her friend in surprise: "And what are you thinking? Going out and living and getting murdered?"
Marie Anne thinks for a moment. Could she fully trust her friend? Perhaps not. She laughs and says, "Don't worry. My parents often say I'm too rebellious. Sometimes it seems like I'm not even an adult yet. I'd better start preparing for what's coming. It mustn't be pleasant for anyone who's living outside *Bloomcamp* and I can't help but feel sorry for him."
Carine looks reassured. "I thought you meant it for a moment," she remarks.
After they part ways, Marie Anne walks in on one of her friends. He's a technophile and with him, she can be sure he'll never

question her actions if she asks him for an undetectable external connection. She quietly lets him think she has a boyfriend since her visit to the Cambridge District a few years ago. Once her avatar connects with Henry Pax, she gets straight to the point: “Dangerous things are happening. The three foundations might stop paying the universities soon, and apparently, some kind of mass extermination of Megapoleis residents is being considered.”

“I’m not really surprised,” says Henry's avatar. “We’ve already heard rumours in that direction. There are a lot of experiments going on with selective viruses in the outskirts of some large megapoleis.”

“Henry, I’ve had enough of it. I want out of here. I don’t want to be moved to *Elysium*. I can’t stand it anymore.”

Henry’s avatar seems to freeze for a moment. After a moment, he says in a businesslike tone: “Of course you can get out. Organize a visit to the Megangeles university district. Make sure you’re there in exactly two weeks. You’ll be tracked as soon as you leave the Condominium. You’ll be contacted for a screening. You’ll receive further information after that. Please note, after the screening, there’s no going back.” He continues in a more relaxed tone: “Everything will be fine, my friend. Just make sure you’re in Megangeles on time.”

The next few days, Marie Anne is busy. She acts as normal as possible when she visits Carine and her other friends. She does mention, however she plans to go to Megangeles with her father. He’s on a working visit to the local government and she wants to stay for a few days to relax. The others laugh. “Does this relaxation have anything to do with a visit to Cambridge?” someone asks.

Marie Anne laughs back. “I can’t get my father to lend me a pilot and plane for a trip to the East Coast,” she answers. “No, I just want to consult some rare objects and texts in Megangeles, and my father did give me permission to do that.” Ten days later, Marie Anne is in the university library, studying an issue of *Ignarysis.* She bends over

as she's interpellated by two young people: "Marie Anne, you can come with us now. We'll sit in a public place so no one will find our conversation suspicious."

In the open area in front of the library building, the three young people sit down on a bench. The young people have a list of questions ready. They record each of Marie Anne's answers. Half an hour later, when they look at the recording unit, one of them says: "Okay. Your answers allow us to ask the last two questions and perform an action. This is the point of no return. Either you leave now and you'll never hear from us again, not even from Henry. Or you move on now. You can't go back on your decision."

Marie Anne feels cold but then says, "I've come this far because I've already made my decision. I don't want to go back to Sequoia Condominium. I'm moving on."

Then the other young man says: "After the next two questions, you will have time to prepare everything according to the questions. After that, you will cease to exist because we will remove your identification chip and erase all data. If you do not show up in the meantime, you will be permanently liquidated. You are known as a *Bloomberg 9 value* And we're not taking any risks. Is that clear?

Marie Anne continues to tremble but nods bravely in confirmation. The young people then ask how much *digits* she can spent on goods without her family finding it suspicious. They also ask if she's capable of carrying implanted information of her choosing. The implantation involves memorizing as much of it as possible. She then laughs: "That second part isn't difficult. I know an entire Ignarysis series by heart and am willing to carry that and other series with me in an implanted memory card. Regarding the first part, my credit is unlimited, but it's likely that after a major purchase my father will visit me within the first two hours. But if you're thinking of groceries or a reasonably priced means of transportation then there won't be any questions."

"Okay. Don't spend more than what would raise questions. Only

groceries. Have them brought to the location we specify by the person accompanying you. Make sure you have a memory card with the information you want to take with you. Ask the person accompanying you for this as well. After your guide has left, you will go to the location they specify as quickly as possible. Your chip will be removed there. We will leave immediately afterward."

By evening, Marie Anne has gathered everything. She enters a marina and goes to the designated location where the two young men are waiting for her. After a local anaesthetic one of them removes her identification chip and destroys it, implanting the memory card. Together, they walk to a waiting ship. One of the young men smiles and says, "Everything's fine. We're about to go out to sea. You might have a surprise waiting for you here on the ship." He lets her board, and they enter a room where about ten other young people are gathered. Marie Anne immediately sees Carine. Stunned they look at each other.

They both have the same reaction: "Sorry, I couldn't tell you more!"

At that, they both start laughing. Carine says, "I got a little heated when you told me a few days ago that you no longer wanted to live in the luxury prison. For a moment, I thought you were spying and had found out I was planning to leave *Sequoia Condominium*. And your excuse afterward seemed suspicious. That's why I kept my distance."

"And I just remembered that Henry had told me never to talk about my plans with anyone, not even my best friends."

Carine laughs again. "Yes, Henry, he loves a bit of drama. Did they also stage that whole scene with the two questions and the threat that they'll find you no matter what?"

Marie Anne laughs too. She beckons one of her supervisors: "Are you really going to kill who doesn't show up after the final decision?" she asks.

The boy grins, "I've never hurt anyone," he says, "but since I started my work for *GNet-Z* to establish contacts in the university districts,

only one person has failed to show up under my watch. A colleague was able to pick him up two days later and convince him to move to a rural community. That's our B plan, but we rarely have to implement it."

"And now?" asks Carine. "What's next?"

"We will accompany you until you arrive safely in a rural community near Megapanama. From there, another boat will take you to the coastal region just below the equator. You will find friends there who will take you to *Last Rose of the Desert*. It's a place for *Wandering Books* and Ignorants who have come into contact with Knowers and are moving there so they can bring their children and themselves back into the realm of knowledge."

"Ultima Rosa, Knowers, Ignorants, *Walking Books*?" wonders Marie Anne.

"All in good time," Carine replies. "Henry already told me something about it. I'll tell you what I know. And we'll find out the rest there. We're also ignorant, in a sense."

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Fernanda Mestre rummages through the papers on her desk. Her eye falls on the box containing the Fields medal. Almost four years have passed since she returned in the company of Joana, Elton, and the Fox family. Her thoughts wander further. Ultimately her knowledge has been cleverly used by *Bloomcamp*. She now knows that all the physical and technical research and work that made her mathematical construction possible only exclusively served to make traveling to an partially automated *Elysium* a reality. According to her friends on Moon base 2, there are indeed much greater possibilities for other applications of quantum computing, but not in a money-driven society. Right now, she is mainly angry with herself for allowing herself to be swept away for so long by what she ultimately knew deep down was an illusion without wanting to admit it.

Today she's trapped. Although she doesn't yet know the exact cause, the aggression to which the Knowers are subjected today is constantly palpable. She's been approached to move to Bradin. But without her family. She feels trouble. It seems she'll be placed under a kind of protective house arrest, while no one speaks about her parents, her sister, her grandmother, or her nieces and nephews. She approaches her parents and says: "I came clear with it. I'm not going to accept the offer to move to Bradin. That will likely impact our travel benefits and other perks. I've talked to Moon base 2 about the possibilities, and both the Pax family and the mathematicians who work there say that *Paradise of Books* is the best solution. Meanwhile, I know from Alexandre that the N'Kondo's plan to travel to *Paradise* under Fernando N'Gô's guidance, so I'm going along."

Sérgio and Inês realise that their lives in the Megapolis will become much more difficult once there are no more funded projects in which they can participate. They also know today that their they are largely condoned by *Bloomcamp* because they are Fernanda's parents. But their daughters cannot convince them to choose voluntary exile. Joana enlists the help of Grandmother Greta, who listens intently to their conversation. Greta says that despite being eighty years old, she plans to travel with Alexandre and Manuela. Now that the library house has been completely destroyed, it makes no sense for her to stay in Megalissipo. What can they do here now that they have lost their base for the Charter Groups? The *Cemetery of Forgotten Books* has taken on a literal meaning in Megalissipo. They are surprised that the university library also saw a large part of its contents go up in flames. Greta recalls Carlos Rovelli's words that the university is the vault where human knowledge is devoutly preserved and simultaneously the place where dreams are nurtured, where young people challenge that established knowledge and continue to pave the way for the world. It looks like that university is disappearing and *Paradise of Books* is a new hope. A possibility to

reunite human knowledge and give young people the opportunity for new challenges. She even cites Steiner: *to challenge the authority of a text, you still need to have that text*. And Greta is convinced that Steiner's provocation regarding oral dialogue does not negate the value of the written word. In her view, it is better to have shelves of old authority and engage in dialogue with it in a delayed manner than to simply have dialogue in person. Inês is quickly convinced, but Sérgio continues to say no. He assumes that as long as a university library exists, the community of the Knowers can serve the children of the Ignorants residing in the district. Mindful of the Academy and the Lyceum, learning groups can foster dialogue no matter what, as long as there is someone to moderate it.

A month later, Fernanda and Gonçalo, along with Alberta and Fernando N'Gô, have made all the necessary arrangements. They are thinking especially of Jacobus and Lahn, both around four years old. Alberta says that Sang is already very excited about the big journey they are about to make. With the available digital equipment and thanks to the contacts Paulo and Pedro still have with friends in Megandalusalgarb, the whole family has been able to equip a small boat. They plan to use it to cross from the South Erebúm to the North Alkebulan coast in the strait that separates the Ocean from the Mediterranean Sea, and then sail along that coast until they can access the Nile. Thanks to the contacts with *GNet-Z* they will be picked up at the Great Nile Dam. In exchange for the boat, they will then be taken to the Butiaba community on smaller vessels. There, Dakari or Musa will meet them with the seaplane. The entire journey is expected to take about two months. The family wants to contribute to the *Walking Books*. Sang has memorised two of her favourite children's books and recites them constantly. The adults each decide to implant a small memory card with their chosen book in different languages, and over the past month they memorise the passages most important to them. A

printed copy of each chosen book will also be taken with them.
Greta decides for *Close Encounters with Humankind* by Sang-Hee Lee and Shin-Young Yoon. She memorises the chapters about the relationship between grandparents and grandchildren. Joana hesitates between various works dealing with quantum mechanics, cosmology, and the origin of time, but ultimately decides on *The mystery of time* by Carlo Rovelli. Fernanda assumes her colleagues have already chosen all the foundational works of theoretical mathematics and physics. She prefers to take a different path and focus on the enormous work of Douglas Hofstadter *Gödel, Escher, Bach.* She believes that this work can inspire new generations of young people to develop an interest in mathematics.
Their mother Inês chooses *By Alice's hand. The social and the political in postmodernity* by Boaventura de Sousa Santos. This work is primarily known in Latin, but much less so in Germanic, let alone Arabic or Chinese. Inês believes it contains elements that complement other authors discussing post-capitalist societies. In memorizing it, she focuses primarily on North-South relations, communication, and subjectivity from the final chapter of the section dealing with citizenship and emancipation. Elton chooses the book *Not for profit. Why democracy needs the humanities* by Martha Nussbaum. Gonçalo chooses *Little Philosophy for Non-Philosophers* by Albert Jacquard. He is thinking of future learning communities with children and young people for whom texts from this book can be useful.
Greta's cousins Alexandre and Francisco also choose works from their areas of interest. Like the others, they assume that the major foundational works have already been chosen by other *Walking Books*. Alexandre therefore omits obvious titles and opts for the work of the Angolan José Mena Abrantes *Uma breve história geral do teatro* He focuses primarily on the chapter on the theater in Alkebulan. His brother chooses the scores and an original biography of his long life inspiration the composer Frank Nuyts, titled *Het*

verkeerde been (The Wrong Leg). Their partners choose literary works. Manuela stays with *The Gospel according to Jesus Christ* by José Saramago. Amy, like Gonçalo, thinks about the next generations of children and opts for *The eye of the wolf* by Daniel Pennac. Paulo N'kondo hesitates for a long time about his choice. With his interests in biology and communication, there are many candidates. But in the end, he chooses *A Brief History of Intelligence* by Max Bennet. What unexpectedly his partner Pedro chooses *The cry of the Gull* by Emmanuelle Laborit. This is clearly outside his professional sphere, but not outside his sphere of interest, he claims. He also recounts how much he loved the conversations with Paulo's grandmother, Joana, and how she inspired him to understand not only the ignarometric analysis but also her insights into working with diversity in the biological world of humans and animals, where deafness and blindness are normative deviations for those with narrow minds. Fernando Ngô takes on the task of learning by heart David van Reybrouck's book *Against Elections*. He discovered it after reading another book by the historian and archaeologist, intrigued by the title *Zinc*, which he thought was related to his professional activities as a mining engineer. He found both books in a reserved section at Bradin when he first visited Euro-Brussels after receiving special permission. After much hesitation Alberta finally chose a book by Lamberto Maffei titled *Elogio della parola.* She learns four of the eight chapters of the Portuguese version by heart.

The group of new Walking Books arrives at one of the ports of Megandalusalgarb on a beautiful late summer evening, where Paulo and Pedro's friends are ready to guide them. Immediately after destroying the identification chips, they board the ship they've equipped. They follow roughly the same route as Ivan, Sergei, and Sana and arrive safely in Butiaba, where Dakari awaits them as agreed.

That morning, tension runs high in the meeting room of the *Windsor Condominium* where a crisis meeting is underway. Those present want to know how it is possible that Fernanda Mestre suddenly completely disappeared shortly after *Bloomcamp* took precautions to have her moved to Bradin. The *Sequoia Condominium* has strong accusations towards the Erebúm Intelligence Service. It is said to be failing to do its job. First, there was the unplanned attack on libraries and universities that remained untouchable for *Bloomcamp* Funds, and now, in a short time, mining engineers, volcanologists, and even infiltrated informants have simply vanished after their chip trail faded. The Windsor team of spies working for Bradin and Megalissipo is informed they will be sent to Mars and Ganymede. The head of the agency must come up with a plausible explanation within 24 hours or also be banished to the outer regions.
After terminating the satellite link with Sequoia, the Windsor administrator turns to the head of the intelligence service: “For God’s sake, find out who is responsible for the ever-increasing leaks to… *GNet-Z*. The network of the Knowers is increasingly bypassing our own capacity. This cannot be solely the result of Erebúm’s incompetence. And please find a good scapegoat for our side, otherwise you can lose your ticket to *Elysium*. There are plenty of Bloomberg 8 numbers who would give up all their assets for it.”

Shortly after noon, Fernanda and Joana’s two brothers are ordered to report to Euro-Brussels’ security service. They are accused of having passed on secret information to their family regarding *Elysium* and to advise Fernanda not to come to Bradin. Although they both vehemently deny any involvement in the family’s disappearance, they are given the choice between prison or exile to Lagrange 3 to perform forced labour in a service module. Without further opportunity for negotiation, they choose the latter. That same day, they depart for one of the launch sites of

Bloomcamp.

The investigation at Euro-Brussels reveals that the main responsibility for the unauthorised attacks by *Cou-clib-clans* units in various locations in Erebúm is the work of the Grand Government itself. After its top management anonymously received inside information, perhaps via *GNet-Z* that there would be no place for the high officials and members of the major governments on *Elysium* it decided a kind of kamikaze strategy and gave orders to inflict as much damage as possible. The head of the intelligence service tries to figure out how *GNet-Z* came across such information in the first place. Apparently, two leaks have originated in the direction of Moon base 2. The first may have originated from *Windsor* and is related to the disappearance of the Cheboi family. The second leak is, paradoxically, a gift. There is conclusive evidence that this originated from *Sequoia Condominium* itself and is related to the disappearance of two relatives of a Bloomberg 9 and a Bloomberg 11 number!

Twenty-four hours later, the intelligence chief presents her conclusions to the assembled *Bloomcamp* top. When it becomes clear that the most important thing is the disappearance of relatives of two of *Sequoia's* most powerful residents, the tone of the meeting changes. The head of Windsor Intelligence is thanked for her impeccable investigation and the swift local handling of the matter. Regarding *Sequoia*, measures will be taken to hermetically seal off the Condominium until the general exodus in a year and a half. Furthermore, it is decided to eliminate the entire Erebúm Grand Government as soon as possible.

A few days later, a new, deadly virus variant emerges in Euro-Brussels and two adjacent districts. Ten days later, 97% of those three Polis districts had died. The small group of virus-resistant survivors is released into rural mining areas. Official propaganda reports bewilderment and sorrow among the world powers that a lethal virus can still penetrate even in one of Erebúm's most

protected districts. No one is safe anymore, so the saying goes. A provisional administration is established in the central districts of Megaludein, and all districts of the megapoleis will be hermetically sealed off from neighbouring districts until the mechanism by which the infection spread is determined.

At Moon base 2, developments on Earth, specifically in Erebúm, have been monitored and analysed. Henry Pax then contacts each of *the Three Spots* individually. Work is still underway to ensure comprehensive security for the satellite connections between the moon base and these three locations simultaneously. On the one hand, Henry wants to warn Kwame and his team that there may be changes in the assistance provided to refugees seeking to reach *Paradise of Books*. There is also a special warning for the Cheboi family. In principle, they are untraceable due to the removal of the chip, but you can be careful enough with the *Bloomcampers* today. At the moon base, there are fears that revenge plans are possible. They don't rule out the possibility that a spy could be included in a group of refugees with the intention of locating Dakari Cheboi. That would also reveal the precise location of *Paradise of Books* all electronic shielding despite it. The discussion continues concerning the meeting *Convivialis Civitates.* Henry agrees with Kwame that as soon as the Ignarysis group, which includes Greta Campos and Fernanda Mestre, arrives in Paradise, a discussion about this will be initiated with all the residents of the Three Spots. The moon base will involve other rural communities and Zafonis groups in the Megapoleis.

With Juan Márquez, Henry continues to discuss the debate surrounding the problem of the world population, which is still struggling to stay below 8 billion, and the need get rid of the concept of ownership, as also was discussed in the first *Convivialis Civitates* meeting. During that conversation, Juan introduces Marie Anne and Carine to the participating members of Moon Base 2.

They were naturally delighted with their safe passage to *Last Desert*. Still, Henry takes the opportunity to express his concern about what the flight of daughters of a Bloomberg 9 and 11 number caused. It looks like *Bloomcamp* will act much more aggressively towards the Knowers when they are not working directly for them as well as *GNet-Z,* until the exodus to*Elysium* start.

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Kwame, Sergei, and Musa return home after a group meeting about the new expansion of *Paradise of Books* with concrete agreements between the various support teams for building new homes and establishing new communal facilities for vegetable gardens and poultry farming. The future of *Paradise of Books* is starting to take shape. The Polis has long since stopped relying on the Moon base for its energy supply. And since the engineering team has grown, the entire electronic shielding system is now firmly in the hands of the local population.

Cynthia De Brito comes to meet them with little Denzel in her arms. Musa, as always, feels a warm feeling when he sees his partner and their son, somewhat softening by what happened to Dakari. Sergei gives him a friendly pat on the shoulder. “The Paradise-born generation keeps growing. In a year, our Malcolm and your Denzel will be playing together, under Jelani’s watchful eye.” They pick up Sana and Kwame’s family to prepare their lunch together.

Musa looks toward the lake, where the seaplane had been moored until recently. They will never know exactly what befell Dakari. Was Henry from Moon base 2 right? Was the plane crash that killed Dakari and five passengers an act of revenge by *Bloomcamp*? Or was it simply a fatal accident with no sinister aftermath? They will probably never know. Musa embraces his mother, who joins him, and together they begin rinsing the vegetable leaves.

Paradise Lost Paradise Regained (2100-2106)

Fernanda and Gonçalo are playing with five-year-old Jacobus in the garden of their small house. Inês has just sent home the other children who are part of the Charter group, which includes Jacobus. She tells her daughter and son-in-law about the observations of plants and animals made by the children under her supervision. They will now join Inês and Greta in preparing the family meal.

Gonçalo, together with some new friends, has created a new entry for sociology in the Paradise of Books database. This will also include everything related to *Ignarysis.*

In *Paradise* Fernanda met engineers who, before fleeing, were involved in launching a major project involving anyon's quantum electronic intelligence in space. Today, she reviewed the plans with them for an improved version of it, in which Moon base 2 plays a crucial role. Fernanda now knows that most of the escaped engineers, through their participation in the construction of *Elysium* not only know the structure of the built-in self-developing electronic intelligence but also that the *Elysium* top of this project does not understand it. The project originated the development of sophisticated robots to mine rare metal ores on the moon and on meteors.

"I'm convinced we made the right decision," says Fernanda. Inês nods and adds, "Yes, it's refreshing to see how the team of adults who guide the children in our learning community constantly encourages them to translate their childhood questions into learning projects, without any inhibitions. It's amazing how everyone makes time to help children learn."

Gonçalo notes: "The environment we live in naturally helps. We have enough space to meet our basic needs as a community, and everyone quickly learns how to grow vegetables and poultry upon arrival. Newcomers who are welcomed quickly become welcoming

dwellers for newcomers thanks to the strong support of the first locals. Kwame spoke to me about the evolution of *Paradise* over the past ten years. The Hunt community made a lot possible in those early years. With each new group that arrives, the diversity increases, while the dependence on the Moon Base decreases."

Greta sighs: "It's since my childhood almost the first time in my long life that I feel free again from the arrogant, suffocating pressure that the *Bloomcampers* inflated to protect their own property and power. My happiness would have been more complete if my stubborn son had not wanted to remain behind in Megalissipo."

A sad smile spreads across Inês' face. She says, "Yes, that damned optimism of his, thinking he'd be more useful by staying put than by coming with us. Perhaps he's realised by now that he can't do much in Megalissipo. He'll show up here sooner or later, I feel it."

They've all been quite busy these past few months. Upon arrival, their first task was to securely store the information they'd brought with them. Although the printed copies of their work were lost when one of the canoes capsized during the final leg of their journey, the implanted memory cards were in good condition. The electronic infrastructure in *Paradise* is now very robust, and after about two weeks, they were able to complete the process of storing, reviewing, and optimising the information.

Meanwhile, the receiving community helped them finish and furnish the homes prepared for this group. They decided to move into a home in the neighbourhood primarily occupied by sociologists and historians. This was about a ten-minute bike ride from the math district, but close to the engineering district. The N'Kondo family opted for the literature district, nearly an hour's bike ride away. In *Paradise* itself there are no local wireless connections yet. There are a few centralised rooms for protected satellite connections to Moon Base 2. These centralised rooms are also connected by cable. Because of the installation and the limited

local connections, the two families who traveled to Paradijs together have only seen each other once since their arrival.
The neighbours ensured that the newcomers' children could be quickly integrated into learning groups, and as always when a new group arrives, new arrangements were made regarding the use of the collective bicycles for those who needed to travel to participate in collective projects or to accompany a Charter group from another neighbourhood.
In that short time they went from being sheltered newcomers to sheltering newcomers. Joana and Elton arrive with a basket of vegetables to contribute to the family meal. Joana enthusiastically talks about the newcomers they helped finish their house today. She adds: "It's nice to realise how we're now able to help someone master the basics of maintaining a vegetable garden. A few months ago, I barely knew how I would ever manage to transform seeds into eatable vegetables!"

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Arjan connects from Megameghnapolis to Henry on Moon base 2. He congratulates Henry on the birth of his son Carl. He then asks: "Have you had any contact with *Paradise of Books* and *Beautiful Pearl?* It seems the number of Knowers fleeing to both of those places is increasing."
"Are you sure about that?"
"Today, we are able to bring together all the information from the Erebúm Megapoleis, the Holy Orthodox Kingdom of the Russian Nation, and the Middle Kingdom regarding the evolution of chip deactivation in our centre. As you know, this only happens in two cases: when someone dies or when someone disappears. We now have accurate extrapolation models. Those who already live in rural communities do not have such a chip, and those who disappear do not automatically go to a refuge. The number of disappearances of Knowing People is increasing rapidly. Our calculations indicate that

about half of them are *Walking Book* or *Document Protectors* travelling towards *Paradise* or *Pearl*."
"We will notify both communities," Henry said.
"Henry, and there's something else. You know how we followed the massive chip shutdown when Euro-Brussels was practically extinct? We're seeing the same phenomenon unfolding elsewhere in Northern parts of the world. These are major epidemics. We're perfectly aware of the murderous capacity of the highest *Bloomcamp* Top. I fear they're preparing or already executing some kind of pandemic viral attack. We're not yet able to analyse the continents that are transoceanic for us. Could you please inquire with who's doing that visualisation?"
"If what you say is true, we're in a hell of a problem. Because of *Elysium* our clandestine work to prepare our own exodus fleet as not for *Bloomcampers* accumulated a significant backlog. This means we'll have to encourage those who don't know to leave the Poleis, at least at Northern Hemisphere."
"Yes, and that means that we might have to completely rework evacuation plans *GNet-Z* initially envisioned. Evacuating entire districts is already a major undertaking, but to evacuate more dispersed rural communities on a large scale, we simply won't have the resources for the next fifty years or so."
"We'll keep working, Arjan. We'll do what we can. Here, they're already starting to think about Moon Base 3."
With those somewhat encouraging words, Henry ends the connection.

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Sérgio is finding it increasingly difficult to break through the isolating schemes established by the new Great Government. Internal and external connections have become virtually impossible. He realises that Charter Groups are now merely a fantasy in a whatever Erebúm Megapoleis.

The secure connections with *GNet-Z* are much more difficult today because even in the university district the energy supply is artificially kept low. It took him months after the family moved away to receive a brief connection with Moon base 2 informing him they had reached *Paradise* some time ago. Direct contact is simply impossible.

Not long after, Ferdinand Fox tells him that he has heard from a reliable source that there are plans to capture Sérgio. This could be because *Bloomcamp* wants to obtain Fernanda's residence or to use him as a hostage to force *GNet-Z* to hand over Fernanda. Ferdinand claims that Sérgio must take the warning very seriously. The Fox family, he says, is planning to flee. The events in Euro-Brussels are no strangers to this. Moreover, Ferdinand received information from Gerald Pax about the disappearance of the air-connection between the Butiaba community and *Paradise*. To reach Paradise, refugees taking the Nile route now have to travel several hundred kilometers overland on virtually non-existent roads. And both he and Sérgio are getting older. So if they want to join friends and family, they'd better not wait too long. Today, the journey could easily take a year or more…

Furthermore, escaping from Megalissipo is more difficult than before. Although Ferdinand and his family have some of their *digits* converted into travel materials this is impossible for Sérgio. He fears that if he makes a purchase that raises questions, he will be captured. He knows he is constantly being watched. With the help of operatives from a *Zafonis* group, he manages to reach other refugees, including the Fox family, unnoticed one evening. His chip is deactivated during the flight, after which a complex escape route throws him off track. The journey on foot continues northeast until they are about forty five kilometers from the centre of Megalissipo. There, the group crosses the river. Using a small rowboat, they can cross from the gravel and sand banks on the right bank to the sand banks bordering the left bank. Then the journey continues. The

small group takes advantage of the movements of members of rural communities to remain less conspicuous. They only feel somewhat safe when they are far enough away from the Iberian Megapoleis upon their arrival at *Porta de Pias*. The plan is to stay here for a couple of weeks to regain strength. Ferdinand Fox is making contacts. According to *GNet-Z* it would be possible to travel further from here by horse and cart and thus reach the Mediterranean Sea beyond Megandalusalgarb. Sérgio enjoys the hospitality of an elderly couple he is staying with. Every day he accompanies them to their vegetable garden, where he watches with fascination as his host uses an ancient irrigation technique. The vegetable garden slopes slightly from the point where he has a well. From this well, there is a whole network of small banks built into the earth between the plants to be irrigated. With his hoe, the farmworker opens and closes earthen gates, allowing the water to flow into the garden without a single drop being lost due to excessive fanning. He directs the water precisely to each of the channels that need it. He also explains to Sérgio how he keeps a mental record of which plants have been irrigated and when he should irrigate them next. This is not the same for all plants, and it also depends on the cloud cover, which may or may not protect the plants from excessive direct sunlight.

Two weeks later, Sérgio is already able to make simple adjustments to the earthen gate labyrinth. When they continue south by cart in the company of traveling barterers, he says he had received in *Porta de Pias* a training that seemed to him as important as that which he received as a young man at the University of Megaludein.

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The disappearance of Fernanda Mestre and of the mathematicians and the space engineers who set up with her useful experiments with the partially unraveled secrets of quantum gravity caused great panic in *Bloomcamp*. The devices to provide a rapid transfer from

Earth to the 2 AU distant Lagrange 3 in a straight line remain unfinished. The only working model, which uses what engineers call local space bubbles exhibits defects at specific deflections. After losing several crews and devices, the problems are mapped out today. According to the engineers who are still working on the *Bloomcamp* project the use of the spacecraft is now as safe as a classical helicopter flight on Earth as long as the ratio between the classical gravitational acceleration and the bending of the space bubble generated by the device remains below the critical value determined by the *number of Rovelli-Mestre.*

The departure of the richest of the rich and powerful to *Elysium* is therefore eminent. The far-reaching isolation in which those who chose to move to the space city have given the *Bloomcamp* Condominiums a kind of mythical aura. Hundreds of thousands of Ignorants constantly wander around them. The wildest and most impossible stories circulate about how to bypass security and enter these luxurious places. But every attempt ends in full-blown battles with the guarding militias, claiming a high death toll. Meanwhile, in the condominiums and university districts, the Knowers who have so far remained faithful to *Bloomcamp* are quickly discarded once they are no longer needed. Some join the ranks of *GNet-Z* where they bring valuable information. Others want to continue fighting for a place in the space city. But only highly trained technicians needed to monitor the space city have a seat guaranteed in one of the service modules just outside the city. In exchange for their services, they are allowed to stay near the most powerful and wealthy people who have ever lived on Earth. The outcasts who refuse to accept this join the besiegers of *Bloomcamp* Condominiums. One group manages to mingle with the selected technicians from the *Sequoia Condominium* to be transported to one of the service modules. An alert spy unmasks the group just in time, resulting in all its members being simply executed. The control services supervising the shipment to the space city then decide that

all selected technicians will present iris identification in addition to chip identification. Shortly thereafter, the *Bloomcamp*-top requires every person going on board to present a complete ADN profile.
The first Bloomberg 11 units depart in the summer of 2101. The transfer is done by rank number and by condominium.

The inhabitants of *Paradise of Books* learn from Moon base 2 that the relocation of *Bloomcamp* residents to *Elysium* has begun. There are reports of attempts by the ignorants to invade condominiums and the many deaths that result. The reports from outside are giving impetus to the debates surrounding *Convivialis Civitates.* In general, personal property and the desire for personal enrichment continue to be seen as fuelling armed conflict. Many of the Ignorants from Megapoleis still live according to the social model in which everything is owned and all transactions have a monetary aspect. Meanwhile, rural communities are increasingly developing a form of shared use of tools and products that more and more deviates from what economists call the barter economy. Now that banks have almost completely disappeared from the face of the earth and the *digits* are merely a number on an electronic card linked to the chip of those living in megacities, the concept of money is becoming increasingly blurred. For children and young people from rural areas it's even a meaningless concept.
In the meantime *Paradise of Books* increased in surface area. New homes are being integrated into the surrounding forests. To go from west to east, one now has to count on a hike of more than half a day, and from north to south, the journey easily takes almost half a day. In the western zone, engineers and craftspeople are developing easy-to-maintain bicycles for collective use while a larger depot is being built in the central area. *Paradise* is developing as a hub for the peaceful use of science. The conversations with *GNet-Z* members on Moon base 2 ensure that the Paradise community does not isolate itself. Many debates go back and forth to *Last Rose* and to

Beautiful Pearl although *The Three Spots* still do not maintain direct connections with each other for fear of localisation by *Elysium*-spies staying on Lagrange 4.

Fernanda and Gonçalo are overjoyed with the birth of Emmy Lehrman on April 1, 2101 in *Paradise of Books*. She belongs to the first generation of children of *Paradise*. Fernanda takes over the idea from some colleagues to give this fact a symbolic meaning by expressing Emmy's date of birth according to the Holocene calendar (and thus 1 of Phromehns of 121.01) that is increasingly used by *Ignarysis* co-operators after they heard about it during a debate with Moon base 2, which itself adopted the proposal from *Last Rose*. The communities from Megasantacatarina developed the same proposal after several debates in Charter Groups. They happened to stumble upon Cesare Emiliani's old idea when they agreed to adopt a calendar less based on a specific religious culture.

Some time later, Greta hears Alexandre N'Kondo's died. She manages to meet Manuela Neves in the Central part of Paradise. Together, they reminisced about their decades of work at the Paulo Demeester Library House in Megalissipo. Greta is happy to learn that Manuela's children and nephew are setting up a Charter Group for children and talks about the group she leads with Inês. She said she misses her son. She only knew that he had left Megalissipo, but no one knows exactly where he had ended up. Both Greta and Manuela are poor cyclists, and although they agreed to visit each other occasionally, they will only see each other twice in the coming years.

In *Last Rose* Charter Groups that considered the proposal for that more universal calendar are ending their debate. They are delighted to learn that, after a year of work on the proposal, it was also adopted at both Moon base 2 and the other two of the Three Spots. The entire discussion also raised a secondary interest in the use of "primordial" words, such as those of the Continents and months.

Today's discussion focused on the further search for primordial words. Juan Márquez believes that the groups have gained insight and thoughtfulness in direct democracy. It appears that the groups are more concerned with establishing a culture of peace where communication is a means to an end, not an end in itself. Perhaps it is not necessary to evolve towards a real *Worldlian* or the *Planetian* or the *Earthy* if enough time is taken to talk things through.
Juan and Marie Anne enter their home, where Juan's sister is quietly reading with little Pepe sleeping in his crib. It's as if the baby senses his parents' arrival. He wakes up and a moment later Marie Anne puts him to the breast.

Spring has arrived in Southern Iberia. It's been almost two years since Sérgio and the Fox family decided to leave Megalissipo. In all that time, they still haven't gotten beyond a rural community bordering the Mediterranean Sea. Although they frequently say they need to move on the rural community keeps them occupied.
Upon their arrival, they were regarded with suspicion. The community then consisted almost entirely of non-arrogant ignorant people. This allowed the group to pool practical knowledge and quickly they formed a cohesive group bringing its heterogeneity working to its advantage. The entire group shared one aspect: an instinctive distrust of Knowers. Most members of the group were simply still under the influence of years of counter-information in the Poleis where they had previously lived. Furthermore, some of them had interacted with rather arrogant Knowers who, instead of engaging in dialogue, were rather disapproving of those who had been persuaded not to participate in learning groups.
However, the rural community has built its own *Convivialis Civitas* in less than two years. Sérgio and his friends enjoy participating in community discussions. Every two days, there's a meeting for anyone who wants to attend. Discussion topics are constantly announced in the central location. The community established itself

in an abandoned village, and this central location used to be a ballroom, large enough to accommodate everyone. The topics discussed lead to a decision which is communicated in the form of a proposal to everyone including those who weren't present. If the decision involves regulations, everyone has a month to request the topic to be brought up again. After that month, or its extension, the rule takes effect for everyone until it is discussed again or until someone experiences that the rule causes inconvenience to the group or its members, potentially endangering the general peace. Sérgio listens more than he intervenes. He takes notes for himself, but his ability to write accurately has made him happy to be part of the group of writers who manage the community's overall communication. What fascinates him most is to see how this group, most of whom had only received basic instruction and only a few of whom had been part of a learning group, let alone a Charter Group put quite easily into practice a *Convivialis Civitas*. Two factors may have contributed to this. It was a group of non-arrogant people and since its members left their original Polis no one had *digits* used. In just a few months, they had transitioned from bartering to shared use. Sérgio thinks about what he once read by Bregman. Could copies of his writings still exist? Could one speak of a kind of Bregmanian intermediate step between the monetary world of value and the interaction-based world of use? He misses Inês, with whom he would like to discuss this. Perhaps they should start thinking about traveling further. The Fox family did ask to wait a few more months until baby Aldo is a bit older.

In *Paradise of Books* Emmy has been with the group for two years now. Jacobus is eight and is part of the Child Charter Group, which besides by Inês and Fernanda is also guided by a psychologist, an anthropologist, a historian, and several craftspeople who work with the children to develop their learning projects. Greta occasionally advises the group and in the meantime discusses with Inês how

gaps can be addressed in the next learning group which Emmy will join in about two years. Fernanda and Gonçalo have recently been in contact with Sergei Auctor. Malcolm will also be joining this new learning group. A place is secured for Jelani Zoungrana, and when Musa hears about it he asks if there is room for Denzel. There is always room, is the answer. While the future group of children is being formed, the parents are exploring the support system.

Early 2104, Sérgio's group is finally able to move on towards *Paradise of Books.* Two fishing families agree to take with them the travellers if they are willing to help them with the rather difficult crossing. The rural fishermen use only sails and manpower. Internal combustion engines have long since fallen into disuse, and electric boats equipped with solar panels are rather rare. Both fishing families want to sail the coast of North Alkebulan in search of new fishing grounds. They also heard stories about a rural community that has now regained the knowledge to build electric boats.

Sérgio and Bertrand Fox get some basic instructions from Bertrand's parents who once owned a sailboat when they lived near what was then called Maine.
The crossing goes smoothly, and the travellers are even able to travel relatively close to the mouth of the Nile. There, they encounter a fairly diverse rural community. Among their members are cameleers preparing for a journey to an oasis near the Great Nile Dam. Several engineers who sought shelter in this community join the trip. During the previous biannual voyage, agreements had been made to install a transmitter in that oasis so the two groups could more easily maintain contact, partly because more refugees are now traveling overland.

Bloomcamp Condominiums have become a new kind of No Man's Lands since the last admitted Bloomberg 8 numbers to *Elysium* moved a year ago. As a kind of consolation prize, the militias who remained behind not having permission to travel into space were

sold at low prices the now almost completely abandoned condominiums. All in all, life there is still more luxurious than in the protected districts where the Great Governments live. But life is not very peaceful. Real battles still regularly rage between the militia's outposts and Arrogant Ignorants who try to raid the condominiums and plunder them. The first few months after the exodus of the highest Bloomberg figures, even some Great Governments were unaware of what was happening. Meanwhile, the members of these puppet governments know how they were deceived and abandoned to their fate among an increasingly impoverished population. The following year these governments encouraged leaders of spontaneous revolts to direct their anger towards the condominiums. But gradually, these besiegers learn that the wealthy left Earth. Some continue to try to acquire parts of the still-protected condominiums for themselves.

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In Megameghnapolis, Arjan seeks contact with the Hunt community. Besides the threat of the *Cou-clib-clans* to the shrinking community of Knowers, a more pressing problem arises. The lower city housing university buildings with the protected satellite connection to*GNet-Z* faces the threatening of complete flooding, now that the river dikes can no longer hold back the rising seawater. Arjan and his colleagues need help to discreetly move the installations to a higher part of the Polis. But the Hunt community seems to have vanished into thin air. Desperate Arjan calls Moon base 2, where Henry Pax confirms that no one can contact that community. It is believed that the community was already far from Earth during the last transmissions. No one knows what is happening.

Arjan explains that parts of Megameghnapolis are gradually flooding. Engineers from both locations are reviewing the technical issues to ensure secure communications. An emergency generator,

specifically for audio messages, will be installed in a suitable university building in the upper city.

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The Bloomberg top has been living for three years now in *Elysium*. The early days were exciting. A space city with room for about forty thousand inhabitants allows for a great deal of exploration. But after months, say years, of exploration, the limits are known. No excursions to other places are possible here, as was possible on Earth for those with money and power. Outside the space city, there is only black emptiness and death. Messages from Earth only come through Lagrange 4, and they are not exactly rosy. Most condominiums are now battlefields. The population of the Megapoleis continues to pollute the planet and does not die out. Meanwhile, small local communities in rural areas seem to be largely unaffected by the absence of money and economic activity. The disturbing information is that these groups are doing quite well without the market economy. In short, there are fears that staying in *Elysium* looks like some kind of voluntary banishment, and that banishment is going to last a very long time. Those who used to spend their days analysing stock market reports and investment schemes with the sole purpose of gaining more *digits* are bored. That's the hard truth: there's little to do in *Elysium* and even the most exciting casino games don't produce the adrenaline rush that the stock market game brought on Earth. The fund managers are putting their heads together. Ultimately, there are two problems: the world population must decline significantly for the *Elysians* ever return to Earth and boredom can lead to dangerous behaviour.

Together with the gambling department administrators, a plan is developed. With the help of the most arrogant militia leaders who unconditionally follow Bloomberg's leadership, scenarios can be drawn up within the concept of OPLACLE, placing local governments, cities, the Ignorant, and the Knowing in disaster

situations from which they must either escape or perish. Wealthy *Elysians* can place bets on this. The possibilities are virtually endless: what will the government do? Who will survive? How many deaths will there be in a virus attack? Who will find a solution? What are the consequences for the Knowers? For the Ignorant? Which *Cou-clib-clans* will win in originality?

Another challenge that can be gambled on: when and how will the *Elysium* technicians working on Lagrange 4 succeed in revealing the rural communities in the Ecuadorian Belt? For nearly two decades now, they have been under electronic shielding that, until now, no Bloomberg spy could uncover.

Shortly afterward, panic among the Great Governments increases. There's a flood of conflicting information. There's also a constant reference to the danger of raids between Poleis. The *Cou-clib-clans* are completely out of control in certain areas. Viruses suddenly appear, even in the forbidden districts. More and more Governments are setting up megapoleis against each other. Some places suddenly seem to have more resources than others. No one knows why. And meanwhile, the Knowers and the not-so-arrogant Ignorants continue to leave the poleis, with many miraculously "disappearing" between the tropics.

In the *Paradise of Books* the year 2105, or 121.05 according to the Holocene calendar increasingly used by the Three Spots, starts with new learning groups. The Charter of the Learner is fully incorporated, and each community has groups of adults who can supervise the children's learning projects in almost every branch of science. Four-year-old Emmy quickly makes friends in the group she' s enrolled in. A few hours' walk away, another learning group cares for, among others, nine-year-old Lahn N'Gô. Sang has just turned fifteen and divides her time between supervised self-study in the Central Library and supervising the youngest children in the Charter group, which she herself was a member of until two years

ago.
Dwiterodekmomehns the Mestre family has a very difficult time. Greta Campos passed away at almost 96. She is surrounded by her family. The night before, she long holded Inês' hand, saying, "My stubborn son will soon be back with us, my dear. I feel it in my bones."
Yet it will take almost another year before Sérgio and the Fox family finally arrive in *Paradise*. Coincidentally, they are welcomed by Sang N'Gô and two other volunteers from her team. They take Sérgio by bike to the sociology district, where he finally sees Inês again. His deep sadness upon learning that his mother died last year is at stark contrast to the emotion of holding his granddaughter Emmy on his lap. During the reunion, Sang tells them that her great-grandmother Amy died apparently shortly after Greta. Fernanda notes that from her grandmother's generation, only Manuela and Francisco are still alive and promises Sang to visit the arts district of *Paradise of Books* soon.
Shortly afterward, the first electric bicycles are put into service in *Paradise*. This simplify travel between the various neighbourhoods. Construction start for a network of charging stations connected to the solar panels on the lake and two wind turbines on its shores.

On Moon base 2 the crew realises that *Elysium* observations of the increasing aggressiveness between different Poleis groups is the result of the gambles the managers of the Muscle fund, the Brandad fund and the Azos fund invented together with the managers of the *Elysium*-casino. The relay station on Lagrange 4 is used as an observation post and information center.

Conviviality ingredients (2107 - 2130)

The residents of *Paradise of Books* are excited about the cooperative they are developing together in their new hometown. Shortly after Sérgio's arrival, an important debate begins about the basic structure of what is gradually seems to grow to a medium-sized city. The topic is neighbourhood organisation bringing together people with similar interests or backgrounds.

During the first expansion families as the Zoungranas and Chebois primarily focused on the *Walking Books*. It was easier for them to find initial support among those who had memorised similar documents when pieces had to be rewritten. Yet there was some worrying this could lead to over-homogenisation. But many newcomers don't feel that way. They appreciate being welcomed by kindred spirits after their journey, but no one feels obligated to settle in a particular neighbourhood.

All by all, in *Paradise of Books* no one is obligated to do anything. Every house has a vegetable garden, and neighbours spontaneously gather to exchange fruits and vegetables. In several neighbourhoods this exchange is no longer the case; it's more about preparing meals together. These meals often run long and many conversations naturally revolve around former professions and interests.

While everyone invests a considerable amount of time in maintaining their gardens, raising small livestock, or fishing, many residents want to do more simply they because they enjoy to do so. Those who take on tasks ask nothing in return. Yet, certain tasks are vital to the entire community. This is primarily the case for maintaining the energy grid, which at first is necessary to keep the importent protective shields against unwanted observation in good working order. Generally speaking the technical *Walking Books* ensure engineers have sufficient supporting tools available.

Inês is always amazed at how readily most people take on tasks,

simply because they feel to like it. And the neighbourhood organisation is a plus in this regard. Craftspeople and engineers living in the western neighbourhoods point out that it's very convenient to have all the shared tools grouped together. It also simplifies keeping track of some raw materials and salvaged materials. Artists, on the other hand, thrive on the east side of Paradise near the lake. There, too, the shared facilities ease the creative work of those who are so inclined.

At the start of *Paradise of Books* a central location, a kind of bunker at the time, was provided where all future *Walking Books* and *Document Keepers* could check whether their items were in good condition and then store them properly. It gradually became clear that only rarely brought back works, especially those involving memory cards implanted in the skin, had been irreparably damaged by the journey to *Paradise*. Printed works suffered more. Nevertheless, restoration was considered worthwhile, and a solution was sought for the works for which no printed copies reached *Paradise*. Engineers and artists joined forces, and *Paradise of Books* soon had laser printing capabilities for all kinds of surfaces and various visualisation devices.

The same logic that facilitated the collection of common materials in neighbourhood-based workshops seemed interesting for preserving knowledge and science. And that was the first major goal of *Paradise.* That's why no one is really surprised by a joint decision emerging from the debate. Several buildings had already appeared on and around the central bunker. These would now be integrated into a single entity with the possibility of expansion. Therefore all agree to preserve a spacious, undeveloped area around that central location to allow for future expansion. This central location houses the external connection, currently only to Moon base 2. Some say they are interested in developing a simple network so that every neighbourhood could be electronically connected to that central location. The bicycle manufacturers are enthusiastic about this.

They explain that they still produce electric bicycles, but that it might be beneficial for some members of the community to be able to access the central location without constantly having to travel. Someone asks if it's possible to create a kind of *person-to-person device* a bit like the old telephone or mobile telephony as existed in the Poleis until the districts were completely isolated. A communications expert then explains that mobile *person-to-person* connections involve localisation signals. Someone asks if anyone is interested in discussing with her a system of localisation signals without satellite connections. Agreements will be made regarding the working group's autonomy regarding the use of recovered materials.

Sérgio, who was not present at this debate, reads the report with which the participants inform the entire community to find out whether a second debate should take place. He reflects on how this should be handled. *Paradise of Books* is working out solutions for what in the *Zafonis*-groups is called direct democracy. He thinks the term ***pluralistic decision-making*** might be a good description and name for the way the community makes decisions. He then asks Inês if it isn't time to request a debate about the way the residents of *Paradise of books* can provide a simple basic structure for Charter Groups. Many parents of in *Paradise* born children read proposals from *Ignarysis* members, including Sérgio and Inês, regarding the relationship between mathetics and didactics. Meanwhile, Sérgio, Inês, and the other adults in Emmy's Charter Learning Group begin to systematically involve the children in preparing the group meals. One of the parents recently told she had found an old book by Maria Gabriela Llansol in the Central Place [See *Mass Mediocrity]*. It's a kind of diary about a period when she lived in what then was Belgium for political reasons. Along with other political refugees, she explored how to support a group of children in the form of a commune where the children participated in various production processes. In those days of paid employment, food production was a

way to provide the community with not only their own meals but also a small source of income. In *Paradise of Books* like almost everywhere else on the planet these days, the idea of generating income is no longer relevant. However, the principle of preparing meals together is an interesting one. Somewhat hesitantly, the adults in this children's group decide to name it a Llansol Group.

Sérgio and Inês integrate a small group of volunteers who each tell their story and eventually write about their journey to *Paradise of Books.* The more recent travellers have clearly experienced more adventures and have also encountered more rural communities. They draw comparisons between the organisational forms they observed there and the organisational form of *Paradise* itself. The *Ignarysis* members present bring the entire collection of texts together. During the debates, they to link al of it to *Convivialis Civitates.*

During one of the tour group meetings, Sérgio learns that Alexandra and Manuel N'Kondo's mother has passed away. He and Inês visit their distant cousins. They speak with their uncle Francisco, the only surviving descendant of Catherine and Joana Demeester's three children. He is busy gathering as many documents as possible that were once written by his mother, Joana. Among them there is an original copy of the *Charter of Learners.* They ask Sérgio if he can, at some point, check what information about the Demeester sisters has already been catalogued in the database at the Central Library and supplement the information. Sérgio himself is attempting to compile a complete overview of the journal *Ignarysis* and promises to make the necessary connections whenever he finds articles on ignarometry and ignarometric analysis.

Some newcomers in *Paradise* report that the Mediterranean sea level has risen and that the Rhône estuary has now reached Megasul. Part of this Polis is now permanently submerged.

Kwame requests a connection with Moon base 2. Henry Pax

confirms that several coastal areas have permanently changed shape. Approximately half of the polder land of the renamed area of Megabelgium is completely submerged. In Iberia, large-scale migrations are underway now that Megandalusalgarb is virtually uninhabitable. That is also the case for other coastal such as Megalissipo. The entire plain between the Tejo and Sado rivers is now a vast inland sea, while the coastal area above the Tejo consists of a number of rocky islands.

In Megameghnapolis, Arjan Chakma and his entire family have moved into a vacant hotel in one of the districts that once housed a university research center. Together with Moon base 2 and some former *Sequoia* Condominium residents they finally manage to use sophisticated electronic intelligence to shut down the connection between Lagrange 4 and *Elysium*. They received a somewhat unexpected boost from nature, thanks to a peak in solar wind activity that permanently disabled the communication beam between the station and the space city. The Lagrange 4 station is unmanned. The former *Sequoia* residents locate the tracking stations on Earth, and the technicians, who are essentially trapped there, are given the choice between relocating to Moon base 2 or being placed in a rural community with limited communications infrastructure.

This decreases the direct *Elysium* gamblers influence on Earth. It does not alter the fact that the report on the situation in the Northern Hemisphere compiled by Moon Base 2 is not very rosy. The ice cap has now permanently disappeared throughout the Arctic. The coastal regions are swampy marshes and virtually uninhabitable. In addition to natural plagues caused by the extensive destruction of local ecosystems, the effects of the *Bloomcamp* gamblers who introduced counter-information and viruses severely affected the population of the Northern Hemisphere. According to estimates from the observation posts on Moon base 2, the world population, weakened by local conflicts and epidemics, has now fallen below six billion.

During the hectoyear 121.08 the Lector family arrives in *Paradise of Books*. Pierre Lector joins the volunteer group where Bertrand Fox and Musa Cheboi also provide services. Together they are working on the implementation of several sustainable local networks, which have been the subject of much debate recently. A year later, a wireless network between fixed public communication units reaches all neighbourhoods of *Paradise of Books*. The shared use of these units is much more energy-efficient than individual units. Moreover, the connections between the fixed units can be managed by two local antennas, and there is no risk GPS or other satellite signals being picked up.

Half 121.10 Francisco N'Kondo dies. He was the last member of the Demeester family to be born in the Europe that Paulo Demeester had known: a union of states with elected governments in which citizens could move freely as long as they had *digits*, then called money or currency, and their time was not completely determined by compulsory paid work to provide for their livelihood. For the generation of great-grandchildren, including Emmy, Jacobus, Lahn, and Sang, that seems like a distant past. The youngest children, like Emmy, have *Paradise of Books* as the only reference. For slightly older children, memories of life before Paradise are rather vague and often more marked by the journey they undertook with their parents to arrive to *Paradise*.

And here, the internal networks are now fully stabilised. This facilitates debates among larger groups of residents. Interactions are based on the trust characteristic of any first generation after a traumatic transition. Much work has been done over the past ten years to incorporate cooperation as a foundation for mutual trust into the Charter Group structure for children. Sociologists, psychologists, and anthropogogues agree that the disappearance of the *digits* and the adaptation of adults to a form of society based on the shared use of resources rather than personal ownership is a

huge advantage in this regard. Fernanda is delighted to see how more and more dialogue-based educational projects are being launched now that the number of *Paradise* births are rapidly increasing. She joins a group of scholars who propose to stimulate children born in *Paradise of Books* for pluralistic, empathetic ways of thinking and acting. This is permanently connected to technical and physical knowledge, without losing sight of prose and poetry. The group is thus implementing two ideas proposed by the community: all knowledge available to everyone and an increasing symbiosis between biological and electronic memories. Although the ancient pansophic thought of Comenius contained many dogmatic limitations regarding the origins of the world and the cosmos, the basic idea of making all knowledge accessible to everyone is an important principle for a pluralistic society. It is, of course, impossible for a human being to possess profound knowledge of everything, so the idea of electronic auxiliary brains is a prerequisite and not an obstacle in a pluralistic world.
This need for the use and the control over robotics and automation will continue to guide Fernanda in her research work until her death. According to Moon base 2, *Paradise of books* is today certainly one of the larger settlements where the further development of non-warlike science is a reality.

As the making of arrangements between volunteers from different neighbourhoods of *Paradise of Books* becomes easier, the number of outings by the Llansol group and visits to other neighbourhoods increases significantly. From the age of twelve until she turns eighteen, Emmy has the opportunity to thoroughly get to know *Paradise* and to spend debate evenings with many other young people from her own study group or from other study groups, in her own neighbourhood or in other neighbourhoods. The excursions to the east side of Paradise often include concerts, theater, entertainment, and cooking workshops. Along the way, Malcolm

Auctor, Jelani Zoungrana, Claude Poulain, Emile Lector, and Aldo Fox become part of her regular circle of friends. She must have been around seventeen when during one of those excursions to the history and computer science district, her study group come into contact with several adults who had settled in Paradise about two years ago. These are former Bloomberg 8 value numbers who once cherished the hope to be able to travel to *Elysium*. But already in 2102 (121.02) they knew that they were not highly enough evaluated to ever have a chance of getting a ticket to space.

Meanwhile, fifteen years have passed and when the young people ask for an explanation of the meaning of Bloomberg numbers and evaluation, one of their hosts provides more information.

“You must know that we lived for a long time nearby Megaludein in the Northern Hemisphere of the planet. That was and still is one of the great Polis of one of the islands of Great Britain (Erebúm). We used to think in terms of personally owning things or services for which one always paid. To pay, you had to give over *digits* and you got those by working for it or investing in companies or services others worked for. To have so much *digits* as what we had, simply working for others wasn’t an option. One had also to invest in or set up and maintain one’s own businesses. And the better one were at it, the richer one became. Getting richer meant having more *digits*. You may have heard parents or grandparents talk about *Bloomcamp* or the *Bloomcampers*. That’s because there was a magazine that calculated the value of people by how many digits they had. Back in the day, they used a currency for that, the dollar. But in the last hundred years one *digit* simply equals one dollar. A logarithmic scale was created to assign a value to each. This means that someone with a Bloomberg number 8 had a maximum of 10 to the eighth power of digits. Compared to others, a Bloomberg 8 in 2090 had a huge number of *digits*. That was only a little over half a thousandth of the population, but still good for almost 50,000 adults. That's why we lived in segregated areas. Many were afraid

to live among those who had much less. There were those who were abused or murdered by others who tried to steal *digits*. And meanwhile, whoever had a lot of *digits* rose up the idea that it might be better to live in a space city for a while if things got too bad on planet Earth. But not everyone could fit into such a space city. They were thinking of space for 35,000 adults, which was what they envisioned in 2080 when the city's construction started. Now, back then there were also Bloomberg numbers 9, 10, and 11, which meant they had up to 10, 100, or 1,000 times more *digits* than we did. They had priority to leave for the space city. After they claimed their space there were fewer than 10,000 spaces left. So, most of the Bloomberg 8 numbers couldn't get in. Those who still lived in condominiums quickly left after the militias increasingly claimed the closed spaces for themselves. With the absolute rulers gone, food and energy supplies were often threatened.

Those who lived in the administrative and better districts soon faced the same problems. *Digit* transfers often failed due to major power outages. Bank systems had fewer technicians. Generators and own electricity supplies exhibited major deficiencies, making it difficult to update and *digit* information was often not entered correctly. Bloomberg 8 figures who considered themselves the new rulers of the world just a few months ago found that the description of their wealth was purely virtual. They often couldn't buy the labour they needed with it. Increasingly Polis residents were less interested in working for others in exchange for a transfer of Labou to *digits*. No one knew when they would be available or what to do with them. The large food chains had supply problems, both to their central warehouses and from those warehouses to consumers. In turn those were never certain they had actually been able to pay for their purchases and even if payment had been made, whether the supplier would ever have the goods delivered. As parts of the Poleis depopulated, vacant gardens and parks were converted into vegetable gardens, and many Poleis residents found it wiser to join

organized groups that provided for themselves. Within the Poleis these groups were usually hierarchical, but just as in certain rural areas where mining was still practiced or in the Middle Kingdom where certain production chains were maintained, the Bloomberg number was no longer a primary criterion for the organisational chain. Often, arrogant, ignorant individuals could gain the upper hand, and in that case, there was no cooperation. It is more appropriate to speak of compulsory collaboration. Anyone who ended up in such a group would be better off not showing off their old Bloomberg number.
Among the Bloomberg 8 numbers, there was, of course, also a significant group represented by ideal types at the center points of the ignarometric scale. When, during their relocation from a condominium or district, they came into contact with rural communities that had some form of *Convivialis Civitas.* It often happened that these individuals gradually emerged as interesting and interested cooperators. They quickly understood that their value to the group no longer consisted of uncertain virtual ownership of inaccessible places or products translated into shares expressed in non-exchangeable *digits* but in their knowledge and their capacity to tackle concrete problems with others and to find provisional solutions to them.

During the various visits to other parts of *Paradise of Books* and a trip to the Bukoba community Emmy and Malcolm are increasingly drawn together. Emmy wants to continue mentoring children and Charter Groups. She reads what she can about Llansol, but in doing so, she also comes into contact with document keepers who keep writings under the title *Modern School.* She reads Ferrer and Freinet and quickly makes the connection with the ignarometry her mother and grandfather often discuss. She understands the connection with institutional anthropogogy. More than with Ferrer and Institutional Anthropogogy, she sees how the meal aspect is also present in

Freinet. Then she is advised to look for texts written by social anarchists. She asks Malcolm for help. He says that the rural *Civitas* in *GNet-Z* are various elaborations of what he understands by social anarchism. He quotes Errico Malatesta, whose father brought documents to *Paradise of Books* and who saw the connection between economic emancipation and political emancipation. When only one of these emancipation movements takes off, you inevitably get either state socialism (socialism without anarchy) or a new kind of survival of the fittest (anarchy without socialism). According to Malcolm, over the course of the twentieth century, and actually up to the rise of the *Zafonis*-groups were a number of small movements that appealed to social anarchism, but often did not go beyond agitation, small occupations of companies or buildings and even petty theft. Those *Zafonis*-groups are, according to Malcolm, the heirs of Malatesta. “The ignarometry your grandfather spent so much time on,” Malcolm continues, “explains how the two emancipation movements Errico Malatesta talks about can intersect to connect low arrogance with low ignorance. The ignarometry framework doesn’t speak of social anarchists, but of pluralists with a cosmopolitan ethic and anti-power intellectuals. These don't develop spontaneously. One needs education. Francisco Ferrer and Domela Nieuwenhuis gave it the name libertarian education, and Célestin Freinet captured its essence when he revived Ferrer’s Modern School by moving away from the *bourgeois new school* and having children live and work cooperatively. For me, the Llansol Group is a form of this. The idea of making food growing and preparing meals as a built-in activity in the Charter Groups provides a solid foundation for connecting collective use of nature, rather than collective ownership of nature, with cooperative decision-making, rather than collaborative decision-making.”

Malcolm then adds that he plans to use the meal principle as a starting point for the new Charter Learning Groups for adults that he wants to establish together with a group of volunteers who want

to take on the task of receiving refugees in the footsteps of Knowers. They decided to provisionally name these reception groups *Paulo Freire circles.*

Between 121.20 and 121.25, the flow of refugees from the Knowing and the Ignorants to the equator increases. This also puts greater pressure on the Three Spots. Other local communities are also growing, and the volunteers who supervise educational projects for children and adults have a lot to do.

Two decades after the disappearance of the richest *digit*-owners to their self-sustaining space city the economic engine finally grind to a halt. According to reports in *Beautiful Pearl,* the communities nearby and information from the few refugees from the East towards *Paradise of Books,* the Middle Kingdom remains a residue in the world where there is still some form of capital-based economic activity and where goods and services are still subject to *digits* to be paid.

In many refugee centers, young people and children arrive without any family. They bring stories of aggressive and murderous militias in what remains of the megapoleis where the market economy has ground to a halt. Malcolm deduces from their stories that in these places, the most impoverished form of egocentric anarchy establishes the rule of the strongest, with leaders forcing others to steal, kill, and work for them. Many of the young people recount how their parents often sacrificed themselves to give them the chance to escape militias and armed loudmouths. Sérgio sees the various ideal types in the upper right corner of the ignarometric framework.

During that time, Alika M'Bala arrives in Paradise accompanied by her sister and brother. They have endured a traumatic escape. During their journey, their group was attacked several times, killing many elderly people. Alika settles on the east side of Paradise and joins the adult learning group of Alberta N'Kondo and Fernando N'Gô, where she meets Lahn.

In *Beautiful Pearl* arrives a group from the Australian continent. Among them are Anui and Taiana Southpath. A few weeks after their arrival, they celebrate the birth of their son, Keanu.

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In *Elysium* the gamblers are upset now that a permanent connection to planet Earth is no longer possible. The technicians are unable to regain control of the electronic intelligence after the successful interventions of the team led by Arjan Chakma and Henry Pax.

The governance of *Elysium* is now in the hands of an egocentric figure. He has gathered a sort of court around him that spends its time organising parties and orgies. The Fund managers are busy maintaining and repairing the space city's broken parts. They invest their free time in finding solutions for the foreseeable end of *Elysium.* According to the technicians residing on the satellites, the space city is about halfway through its lifespan. There's not much that can be done about that. Three scenarios are emerging. The first is to return to Earth after the global population has shrunk further. This would signify mining off the planet, at least on the moon and possibly beyond, given the way resources have been used in the twentieth and twenty-first centuries. A second scenario would be to move to where those resources are available: Mars. The terraforming of the planet has been halted after the *Bloomcampers* decided for *Elysium* but it can be restarted at any time. That does mean a period of adjustment in habitats like those used on the moon. And that's the third scenario. As long as Earth and Mars aren't attractive places, *Elysium* could move to the moon. Less luxurious, but less difficult to maintain than the space city whose fund managers now understand why the technicians so often shook their heads at the specifications drawn up for it by the world's richest people.

The fund managers aren't really worried about the Caligula-like

figure who has currently turned most of the space city and its inhabitants into his playground and court. People still believe that wealth determines hierarchy, but the managers of the three main funds are now convinced that they, along with the technicians, can take charge at any time, simply because they possess the scientific expertise thanks to that small group of Knowers who went along with the *Bloomcampers* into space. Perhaps it is also paradoxical that if something really goes wrong, *Global Net-Z* members won't be completely hostile to the space city population. And that can be cleverly exploited…

On Earth, the *GNet-Z* members have focused almost all their attention on the increasingly common small-scale rural communities. All communities where cooperative consultation, direct democracy, joint decision-making, or other forms of governance exist without a clear leader and where individual ownership no longer exists, have recently been given the general designation *Convivialis Civitates.* The *GNet-Z* members and *Ignarysis* groups study these different forms based on the reports they receive from those who arrive in the Three Spots or on Moon Base 2. There is a striking diversity among the communities, although two aspects emerge everywhere: the joint management of available resources and the sharing of all food, which ensures neither surpluses nor useless overproduction.

For the first time in years, there is a short connection between the Three Spots and Moon base 2. *Paradise of Books* and *Beautiful Pearl* manage to forward the conversation directly to all neighbourhoods. In *Last Rose* and on Moon base 2, a large portion of the residents come to the central location to attend the meeting, where arrangements are made to keep the meeting publicly available to all residents afterward. The first part of the meeting will primarily serve to exchange information about the concept *Convivialis Civitates.* The participating parties agree to continue working on

mapping communities. The support of the Ignorants who have fled from the more violent Poleis is also discussed as a point of interest. A more technical discussion then follows after Henry and Carl Pax explain that thanks to the interventions of a group of engineers supervised by Arjan Chakma in Megameghnapolis, *Elysium* can no longer reach and influence Earth. This should gradually reduce the more serious epidemics. However, Henry thinks it is wise to assume that their colleagues on *Elysium* sooner or later will have the appropriate countermeasures implemented. Work should be done to establish a virtually undetectable permanent connection between the Three Spots and Moon Base 2. Taiana Southpath is participating in this conversation from *Beautiful Pearl*, Musa Cheboi from *Paradise,* Marie Anne and Carine who moved from *Sequoia* to *Last Rose* in the process became very talented engineers. They agree to work on solutions together with their own communities. Moon Base 2 proposes involving Arjan Chakma and will establish the necessary connections.

In *Paradise of Books* dwellers are excited about the ongoing reorganisation of more and more people in previously small communities. Alberta thinks of her grandparents and Greta Campos. They would have welcomed this development. She tells Fernando that it's high time to visit Gonçalo and Fernanda. It's been a while since they've seen each other, except for those meetings where the Charter Groups were discussed. Yet, it will be longer than they think before they meet again *'en famille'* when Lahn and Alika announce the birth of a baby girl. She will be named Jamille.

In 2125, the Knowers of *Elysium* think enough is enough. The entire administrative court is placed under strict control. Gamblers are playing increasingly dangerous games. Two rather serious incidents, initially thought to be sabotage, were the result of a bet. In those incidents, some of the personal residences of some two hundred residents remained uninhabitable for almost six months.

Major fund managers are sounding the alarm. The Court is coming under strict control, and the entertainment industry is creating new virtual worlds where players can spend almost unlimited time.

But the economic regulator is also worried. For almost two years now, the buying and selling of space objects has increased alarmingly. These includes meteors containing water and ore, or parts of the moons of the large gas giants, while land prices on Mars and Ganymede are skyrocketing. The trading of space assets looks suspiciously like yet another tulip bulb speculation. The legal system in the Space City now has a system of community service. The work sometimes entails considerable danger. Strangely enough, this seems to be the right solution to keep the adrenaline in check for aggressive young people from the wealthiest families.

Meanwhile, the younger generation of Fund Managers is looking for opportunities to gain more financial control throughout *Elysium* which would also increase their decision-making power. New reports extend the Space City's durability to 2155. Meanwhile, there are indications that the Knowers who remained on Earth are building new moon domes. Something to keep an eye on. Perhaps the three largest funds could jointly purchase the land and new moon domes once they are usable…

At Moon Base 2, discussions are focused on the planned expansion and the construction of new lunar domes. Costs are, of course, not discussed in an environment where there are no *digits* readily existing. There is a precise picture of the collectively available materials and of the teams interested in developing new locations on the moon. It is possible to create four more artificial caves using controlled explosions of leftover, powerful weapons. Ideally, there would be five lunar bases to serve as temporary shelters if a larger evacuation of Earth were necessary. Climate specialists, virologists, and seismographers, each in their own field, remain quite concerned. It is unclear how the planet will evolve, but it seems previous observations suggesting that the area between the tropics,

notwithstanding its many islands, may offer the greatest opportunities for establishing rural communities are receiving confirmation. But you cannot move six billion people there without creating new major social problems. What are the solutions? Is it ethical to remove the Ignorant from their districts, send them to the moon, and from there to Mars or Ganymede? What about the aggressive militias? Or is it more ethically responsible to leave the planet behind and let the population of the Three Spots leave along with a number of *Convivialis Civitates.* And what about the groups of less arrogant Ignorants ending up in Charter Groups?

Simba is born at Jelani Zoungrana. The group with which the Zoungranas and the Chebois regularly consult and collaborate wants to review the new proposals regarding house construction and the creation of vegetable gardens. There is now a general agreement to build houses no higher than a ground floor with a superstructure. In practice, this ground floor can be somewhat higher than ground level, especially on the east side where the lake sometimes rises due to rainfall. The superstructure will then be a kind of high first floor. A simple, relatively wide street pattern is being adopted, which will allow for a high-speed tramway connection at ground level in the future. For the time being travel will continue by bicycle and electric bicycle. Several cargo bike models have been added to make transporting goods easier. Meanwhile, engineers have finished building an electric vehicle that can be used to move larger infrastructure such as pre-built rainwater collection tanks. Each house is provided with a plot of land that has been prepared for growing vegetables. There are no boundaries between the vegetable gardens, making it easy for neighbours to discuss what to plant where. This also facilitates communal poultry farming. Advice from rural communities and former residents of specific urban areas is very helpful in establishing the vegetable gardens. They draw on extensive

experience with allotments. Another challenge is the organisation of the water and energy grid. Drinking water comes from the lake, which requires treatment. This treatment is supervised by electronic intelligence. A fully automated water distribution system is also being developed. Establishing a local electricity grid presents numerous technical challenges. A good mix of centrally controlled production and individual inputs that can be easily started and stopped, is the solution to absorb peaks and prevent overproduction that could jeopardise the entire grid. For the Central Knowledge Collection Point, which requires more sophisticated IT infrastructure, hydrogen generators are currently available.

Arjan Chakma arrives with the whole family in *Paradise of Books.* They bring a wealth of technical information that Arjan and Samir immediately share with the group that includes Musa and Cynthia Cheboi. Arjan explains that some of his closest colleagues have chosen *Beautiful Pearl* where they want to work with Taiana and Anui. They face several challenges, the biggest of which is establishing a permanent carrier wave between Moon base 2 and the Three Spots.

Anthropogogues and sociologists in the Three Spots and in rural communities are asking for this permanent carrier wave that will simplify long-distance communication.

In the meantime, the Llansol and Freire communities at *Paradise of Books* are studying together various aspects of food production, cooperative meal preparation and sustainable knowledge gathering.

Ultimately, the engineers succeeded in establishing a relatively energy-efficient and stable connection using what is now known as AGCD, or Adapted Ganymede Carrier Waves. The renewed contact with the Hunt community, combined with the further theoretical mathematical work contributed by Fernanda Mestre, finally gave the engineers the insight to use such carrier waves to transport energy. Much doubt remains about the way for transporting of matter.

Now contacts are becoming easier, anthropogogues are actively using the new permanent communication possibilities to jointly develop a kind of blueprint for to support structures for children.
The basic idea of the Three Spots was to organize the *Walking Books* and the *Keepers of Documents* into logical groups. There is, as said, no obligation to establish themselves in the knowledge zone that corresponded to their personal knowledge, but newcomers are encouraged to contact *Walking Books* and *Keepers* in their sphere of interest. After 121.25, all preserved and newly produced knowledge, literature, and art is placed on various media in the Three Spots, which continue to protect themselves from *Cou-clib-clan* and Elysians.
There is a need to establish links between scientists to gain an overview of the world's remaining reserves and how to approach sustainable policies with children. The aim now is to bring together scientists from various branches of science to gain a kind of overview of who is involved in what in *Paradise*. And what to do with *Elysium?*
Emmy and Malcolm participate in almost all discussions of a sociological or anthropological nature. Pepe Márquez and Anui Southpath join the group on regular basis. The latter is often accompanied by Taiana, whose technical contributions are greatly appreciated. Lahn and Sang also often join the group meetings.
From practical experience gained in the Three Spots and in several *Convivialis Civitates* the debating anthropogogues conclude that social connectedness during children's growth can evolve into both cooperation or collaboration as a result of environmental stimulation. To achieve a successful convivial community, it is crucial to incorporate cooperation into Charter Groups. Complementarity this requires the notion of diversity.
There are similar ideas about how to encourage cooperation among young children. Giving everyone the same tasks is unacceptable. It is crucial to encourage groups to search for solutions based on

concrete problems. There are no best answers, but rather more efficient solutions depending on the circumstances of the problem. Most adults who work with even younger children find that making something together is usually an interesting problem with great educational value, as long as differentiation in approach is allowed. Emmy and Malcolm ask about others' experiences with preparing meals and share their own observations in Llansol and Freire groups. Gradually, a description emerges of the anthropological AND anthropogogical significance of preparing and having meals together. Emmy proposes making it a kind of guideline for setting up any learning group in an existing or developing environment in any *Convivialis Civitas*. The group defines this as the meal principle. The idea is being disseminated more widely among residents of the frequently participating rural communities and of the Three Spots. There are a growing number of stories about experiences in rural communities during trips to the Three Spots or to the *Convivialis Civitas* of one's choice. Participants also discuss how to stimulate learning groups, while avoiding appearing paternalistic. They cross-reference practical experiences with available texts and documents from the Central Places of the Three Spots on participation, social anarchism, and educational models in which learners are considered co-authors of their learning process.

[Written by Lev] In the year 2127 or 121.27 in the Holocene era I saw the light of day in *Paradise of Books.* My parents, Emmy and Malcolm, were 26 and 28 years old at the time. Of course, I personally do not remember anything of this neither of the following years. My earliest memory not based on hearsay, is of Grandma Fernanda's visit to my class, where she played math games with us. That must have been in 2130 (121.30) or 2131 (121.31). More on that later.

Much of what Maria and I include in the rest of this volume comes or from own memories, or from what my mother told me, or from

what my granddaughter Catherine found as we prepared our contribution to this saga.

At that time the residents of *Paradise of Books* rarely talked about their lives before Paradise. An exception at the arrival of new Wanderers. The following conversation is an example of this. We found the recording many, many years later, after our stay at the Moon Base and our return to Earth. One day, my father was cataloging memory cards on which he used to record the debates with other sociologists and anthropogogues during the final years of the Pre-Rebuilding. This particular card had no references whatsoever, and when we started the audio, my father let out a surprised exclamation, explaining that it was a kind of test recording he had made to test his new equipment. According to him, the conversation was recorded in our then-home in the sociology district of *Paradise of Books*.

I'm reproducing the conversation here in its entirety.

"We heard from Jelani Zoungrana that you wanted to be housed in the sociology district," I heard my mother Emmy saying. "Where are you from?"

"We come from Megasul, more precisely from the region where the city of Toulouse used to be," answers Emile Lector.

"And why did you want to be taken in here?" asks Malcolm.

"I've always been interested in sociology," says Claude. "And I heard from Jelani that you're working on ignarometric analysis. I brought some texts by Joana Demeester myself. They're articles we were able to salvage from the general burning of the Toulouse University Library, university where Joana spent a year in her youth."

"Were you able to bring that here?" Emmy asks as the emotion is clearly evident in her voice. "What an incredible coincidence and what incredible luck. You should know that I'm a direct descendant of Joana Demeester's sister, Catherine Demeester. Catherine was my

maternal grandfather's grandmother!"
"What a coincidence, indeed," Claude replies. "We will have everything safely store it in the Central Place in the next few days. If you'd like, come with me, and you can take a look at what I brought."
"It's meaningful that you immediately mentioned Toulouse," says Malcolm.
"Yes,"Emile notes, "I always heard my parents talking about Toulouse. They hated that new Poleis that merged cities into megacities divided into districts."
"Are your parents here too?" asks Emmy.
There's a pause, and then Emile says, "It's still difficult. As far as we know, Claude's parents still live in Megasul. My parents made the journey with us. My father died on the way here, and my mother didn't want to travel any further. She stayed behind in the Rural Community where my father is buried. She said she preferred to stay there, where she could feel his presence."
"Far from here?" asks Emmy.
"It depends on how you travel," Emile answers. "She stayed behind in a *Convivialis Civitas*, near the big dam on the Nile."
"Did your parents know the city before Megasul was made?" asks Malcolm.
"No, they were just too young for that. Your parents too, weren't they?" says Claude.
"Grandpa Sérgio and Grandma Inês met when Barcelona was already transformed in Megabarça and London in Megaludein. Incidentally, Grandpa is Catherine's grandson, and he and Grandma also knew Joana well. Talk to them about Toulouse; it will delight them," says Emmy.
There are footsteps of someone entering the room. You can clearly hear my mother introducing her brother to those who don't know him.
Jacobus asks: "Isn't Megasul where spaceships were, or are,

developed? I work with Dakari Cheboi's grandson, who ended up here via the *Nougaro Condominium* near Megasul."
There is a startled reaction and Emile exclaims: "A *Bloom camper*? Here??"
My father speaks reassuringly. "There are still a few surprises waiting for you. Here in *Paradise* it doesn't matter where you come from or what you did before you lived here. You'll find former militia members, former *Bloomcampers*, quite a few Knowers and many more Ignorants. Claude, if your interest in sociology also extends to the study of strengthening *Convivialis Civitates*, you will have a lot to do here."
"Well well, *Bloomcampers* in *Paradise*… and as for the spacecrafts. Until recently, they were assembled in Megasul, partly in the *Nougaro Condominium*," Emile answers. "My father was part of the team that assembled vehicles of the type that the *Bloomcampers* used to reach *Elysium*. That was before it became common knowledge in what gross manner the scientific and technological world only worked for *Bloomcamp* own interests. After the rich with their *digits* disappeared, a major reorganisation quickly took place, and the engineers and specialised workers took over the development of an advanced prototype that moves in a space bubble, using what we already understand about quantum gravity. My father was also involved in this.
There's a brief silence, and then Claude says, laughing: "Yes, Megasul is a peculiar area. The region has a long tradition of mutual and cooperative organisations dating back to the end of hectoyear one hundred eighteen. Perhaps there are already documents from that period here. Have you met any sociologists who study the history of the labour movement?"
That question was apparently directed at Malcolm because it is him who then says: "There are some of them around here, yes. You must know that my sociological knowledge of the world outside *Paradise* is scarce and somewhat distorted. I was born here, as was Emmy, by

the way. I learned about the Bukoba community through Jelani. I know some travellers from the Butiaba community who returned there after spending time in *Paradise*. I've been there twice myself. My knowledge of the rest of the world comes from the literature that exists here and from what we've been able to piece together from the *Ignarysis* archive. Fortunately, the latter is gradually growing, especially now that we have a permanent connection between the Three Spots."

There's surprise in Emile's voice: "So that solid connection exists really? That's good. Jacobus, are you interested in the technology of spaceship construction?"

Jacobus says: "I live nearby, in the engineering district. We're working with Moon base 2 on a device that looks very similar to what you just mentioned. Carl Pax warned us that we would gradually be consolidating all the work in the Three Spots areas and that other specialised workers were on their way. Are you one of them?"

"My father was better prepared than I was, as were two of his colleagues who survived our journey. But I'm part of that team."

"What I didn't quite understand," Jacobus continues, "is why Moon base 2 insists on transferring all scientific and technical work to the Three Spots."

Claude sighs. "You really live much more in a *Paradise* than you can imagine. The *Bloomcampers* from *Elysium* started to use OPLACLE to make bets on the nature and scale of the resulting disasters. Their influence is now limited after the communications station was disabled."

"By *GNet-Z* members who shut down Lagrange 4," Jacobus agrees.

"Oh, you're already aware of that. Good," Claude continues. "But the destruction and devastation continue. Megasul is a veritable battlefield, you wouldn't believe it. Although the militias aren't receiving any new weapons or ammunition, they're killing wildly with whatever they can concoct and by uncontrollably releasing

surviving viral cultures. We hear that other locations from Megameghnapolis to the Gulf of Mexico are also heavily under attack."

Emile then says: "The militias want to get their hands on usable space vehicles because they don't have the manpower to build them themselves. So, with the help of Moon Base 2, we are moving materials and personnel as quickly as possible worldwide. We can use RESULT where it is still operational." *Paradise* continues to be only reachable by boat, however for the last part, as you know, a better connection is being made between the Butiaba and Bukoba communities over land. *Beautiful Pearl* can be reached by boat and the community of *Last Rose* is putting the finishing touches to a railroad from the coast to San Juan."

"But do the Polis militias want to go into space?" asks Jacobus.

"For a whole generation the *Bloomcampers* from *Elysium,* the arrogant Ignorants, *Cou-clib-clans* and militia leaders keep bombarding us with propaganda," Claude replies. "You know that with *GNet-Z* there is some consensus that the *Bloomcampers* with the highest value numbers continue to fantasise about further depopulating the planet and then re-creating it as a kind of large garden. That's why they maintain this strange relationship with a small group of Knowers. But their following is shrinking. Now that a growing community of Knowers is demonstrating how we can realise sustainable projects without the need for power or money, but only through dialogue, debate, and the formation of working groups, that number is shrinking even further. We are also becoming increasingly creative in our use of scarce resources. And achieving space bubble travel allows us to consider mining the promising meteor belt, where we can utilise the ever-increasing interaction between electronic and biological intelligence. So far, so good. But we must remain vigilant for the *Bloomcampers*."

"Sometimes I think they just get their ideas from old SF books" Malcolm notes. "That garden idea again. It's very reminiscent of a

Philip Dick novel *The penultimate thruth.* Maybe no one read the last chapter."

"Why do you say that?" asks Emmy.

"If I remember correctly, in that book, who is in Power divided the world into villas with gardens, and humanity lives underground. It is led to believe that a world war is underway and that life above ground is deadly. But in the end, things go wrong for the powerful when they are unmasked."

"Okay. But my question was more general."

Malcolm then says, "I did some research from our Central Place because your mother mentioned it one day *WARP*. The quest for rapid space travel seems to be a blend of the creative imaginations of scientists and SF writers. Sometimes SF writers are scientists. Your mother's research is partly based on ideas from the SF series Star Trek, which was very popular during the last century. We have known for a long time that *Bloomcampers* fetched the name *Elysium* for their space city from a science fiction story. Euro-Brussels gave the name Bradin to the University district in MegaBelgium, a name taken from a SF series by Felix Thijsen about the life of space explorer Mark Stevens. The organisation of the *Cou-clib-clans* is clearly inspired by Ray Bradbury's Fahrenheit 451. Even the Knowers were inspired by it when they coined the term *Walking Books* for those who fled to one of the Three Spots. And the name *Paradise of Books* is no stranger to this. And speaking of us. We know that James Hogan was the spiritual father of Victor Hunt. But very little is known about Victor's life. We speak of Hunt Jr. without really knowing whether he is indeed a descendant of Victor Hunt. We know of the research of Hunt and his contemporary Danchecker, who presented conclusive evidence for the existence of non-Earthly intelligence. Those concerned with movement in space and time speak of Ganymede technology, but no one really knows where the boundary lies between what the Hunt community knows, can do, and does, and where the imagination of Victor Hunt's

mentor begins.
Jacobus and Emile laugh and begin simultaneously: “And last century…”
They laugh again. Jacobus says: “Go ahead, Emile.”
Emile then says: “Last century there was another very popular series, called *Star Wars*.”
The whole company laughs, after which Emmy says: “Luckily that story starts with ‘*A long, long time ago, in a galaxy far, far away, there once was…’* Our *Bloomcampers* perhaps took that literally and had concerns closer to home. Imagine if instead of *Elysium* they had a *Death Star* developed…”

After we listened to that recording together, my father told me that the improved connections between the Butiaba community and the large lake, passing through the Bukoba community, quickly became known. Knowers from all over former Erebúm and Central Waçúm headed in that direction, and in their wake, more ignorant people from the Poleis also made the journey to *Paradise of Books.*
According to him, this posed two problems.
There were aggressive urban groups, of course. They themselves were not interested in undertaking the journey to equatorial regions because they assumed they would encounter too many better-organized rural militias that knew the region better and could therefore easily overpower them and force them into forms of serfdom. Although *GNet-Z* didn’t spread such stories it did not contradict them neither. Usually, it was sufficient to give the militias free rein in abandoned urban districts and condominiums.
But even with the less aggressive, there were sometimes problems. Most of the less aggressive ignorants usually simply sought easier living conditions. But it was necessary to address years, often a life-time of disinformation. As education and instruction had gradually been replaced by a relentless stream of short messages, first via individual devices like smartphones and gradually only via

ubiquitous electronic billboards a new mythology had developed and with it pseudosciences soared. The fear of the unknown was as before once more controlled with the help of fairies, gods, and magical formulas, which over the past fifty years had increasingly taken the form of avatars, alien beings, and the revival of all kinds of magical incantations. Moreover, most of the refugees arrived at self-organising *Convivialis Civitates.* Rightly so, it was necessary to gradually involve them in decision-making and cooperation. Many of them had signed a non-participation agreement. Young people, had simply never been involved in decision-making or given the opportunity to truly develop their points of view and interests. My father told me how difficult it sometimes was to make initial contact, to allay suspicions, or to dispel mystical delusions without scaring people off. They constantly had to establish new Charter Groups on many of the escape routes, especially in the neighbourhood and integrate into local groups that were building new lives in the area between the tropics.
My mother's grandfather Sérgio Mestre, who was 82 at the time, created an overview of the twenty-first century of existing societies based on the ignarometric framework. It was on this basis that my mother would work on a model for our century in the following years, providing the ignarometric framework with several new ideal types.
Shortly after their arrival in *Paradise of Books* Emile and Claude's daughter Sara was born. Many years later, I learned that Alika and Lahn had their son Kendi some time earlier. I can't remember if we ever crossed paths during our childhood, before we left for Moon base 2.

My parents later told me, when I joined a Charter Group, how at that time Moon Base 2 was busy installing additional Moon Bases consisting of interconnected domes. The bases were sometimes more than 200 km apart because, during construction, careful

consideration had to be given to the explosions to prepare the underground section. The work on Moon Base 3 was partly coordinated by Carl and Jane Pax, whose daughter, Paula I would meet much later. The residents of Moon Base 1 assumed at the time that the expansion was necessary because there might be problems with housing the satellite residents of *Elysium* in the future if new problems should arise with the automatic life provisions in *Elysium* itself.

I was three when my brother Leon was born. That same year, my great-grandmother Inês died. Naturally, that was a heavy blow for my great-grandfather. He spent much of his time writing down events from their life together. His notes were invaluable to Pablo and Sayen [See *Arrogance & Ignorance*] According to Grandmother Fernanda, Great-Grandfather Sérgio only had some interest in the Charter Groups in which his great-grandchildren participated.
My parents were busy at the time, focusing more on adult education than on the Charter Groups for children. The Three Spots became true information places for numerous rural communities. Those engaged in these tasks were very careful. It was constantly reiterated that the Knowers residing here only shared the knowledge stored in the Central Places. For the rest, Paulo Freire and everything written after him, first within the framework of critical pedagogy, then within the framework of critical and institutional anthropogogy, were a source of inspiration for the debates on how to rekindle a planet towards Ignorants' desire to learn. And, of course, the Charter Groups couldn't reach everyone. More on that later.

My parents and the teams they debated with had two major advantages compared to those who guided Charter Groups through the gradual disappearance of money-based and then *digits*-based economic model. The first was that in the *Convivialis Civitates* and proto-*Convivialis Civitates* there was no market economy. In all these

communities, there was always a starting point, which consisted at least of the exchange of goods, but very often was already based on shared use rather than individual or collective ownership of goods. The second was that in every learning group, it could be established right from the start that the Knowers-Ignorant opposition was a false opposition, a legacy of the way the owning societies established hierarchies among people. In each learning group, it was possible to create an overview of what each member of the group could do and knew, and what each member could not do and knew. Thus, reading and writing were brought into their proper proportions within human capabilities, alongside speaking, singing, keeping poultry without the chicks dying immediately, maintaining a vegetable garden and so on. According to my parents, for example, it was very interesting to rediscover the usefulness of having a former university professor and doctor of medicine interact with someone who could address disease symptoms in a rural community using natural products not synthesised into medicines. This kind of interaction wasn't just important before the volcanic winter; it was also fundamental in establishing new manufacturing processes as we know them today.

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[*Not experienced by Lev himself*] Simba Zoungrana is now five years old and integrating one of the Charter Groups that Emmy also participates in. Faisal is born at Samir Chakma's. Samir has since contacted mathematicians and computer scientists, both in *Paradise of Books* and remotely. He contacts some of his father's former colleagues. Together with the theoretical physicists and the engineers at Moon Base 2, they discuss the possibility of building a particle accelerator on the moon now that the future of using similar facilities on Earth is all but stagnant.

The Vluchthaas [Flee Hare] family has been through a very difficult time. It began five years ago, when rising sea levels in the

Mediterranean brought major changes to the delta region where Jan and Chantal Vluchthaas lived. The high-water mark has encroached on salt marshes and even higher grounds. This has created a kilometer-long, irregular plain with deep indentations where the rising seawater reaches speeds of up to 20 km per hour in some places. These changing conditions, which can also vary from month to month, make gathering seafood a very dangerous activity. Disaster struck the Vluchthaas family as well. Piet and Helga were caught off guard during one such gathering and both drowned in the whirlpools formed by the rapidly rising water. The deteriorating situation in the area of the *Mas du Petit Jean* where much more aggressive militias have recently established themselves make decide Jan and Chantal to move further south. They have repeatedly heard from other travellers that there are more peaceful refuges on the Alkebulan continent. They undertake the journey with two other couples. The boat crossing across the Mediterranean Sea is successful, but then begins a hellish journey on foot, always near the coast, heading east. They encounter a local community three times. In one of these communities, they even spend more than a year before deciding to move on in search of something better. Five years after their departure, they finally arrive in a community where they quickly befriend a travel group staying there temporarily. The group includes three philologists originally from Abya Yala. They recount that about thirty years ago, as young researchers, they attended a meeting in a university district in the Nile Delta. After the meeting, they find out they could not return home because all ocean traffic had been disrupted. Afterwards it turned out that the suspension coincided with the peak of movements to *Elysium*. Eventually they settled in the Nile Delta where they lived for a long time helping *GNet-Z* to guide refugees. Now they are almost finished helping to set up two charter groups in the rural community where they are staying for the time being.

Jan says he himself knows very little about his own family history.

He only knows his grandfather came from the north. He and Chantal are happy to find peace and choose to stay with the philologists and help out however they can. And so Chaytan is born somewhere in a small rural community during the family's search for a welcoming community. When Jan asks for a name that also honours his "saviours", the older of the two philologists suggests Chaytan, which, in the original language of his ancestors refers to a bird of prey. It carries a symbolic promise to give the bearer of the name a clear view of what's happening around them.

[Lev continues] Since 121.32, my parents Emmy and Malcolm have been working on an important support program for the work with the Ignorants. This was done in interaction with other rural communities. They had ongoing conferences about this with *Last Rose* and *Beautiful Pearl.* During those months, Pépé and my mother in particular exchanged a lot of information.
Chaytan must have been about two years old when he and his parents Jan and Chantal reached *Paradise of Books.* The philologists who traveled with them settled in the linguistics district, and Jan and Chantal moved into a house in their neighbourhood. Not much later, my mother had a series of conversations with a group of philologists. That was when the new discussion arose about consolidating the reform of the names of the months and better their incorporation into the philosophy of a Holocene calendar. This would shift the beginning of the year to one of the two equinoxes. Someone proposed a simpler numbering of the months. This, in turn, led to the question of whether it would be possible to return as much as possible to the origins of the naming of the numbers 1 to 12. During one of the conversations, Jan and Chantal were present with little Chaytan, and they received an invitation to visit the Charter Group, to which I also belonged.

I was just under six when my great-grandfather Sérgio died. I remember many tears at Grandmother Fernanda's and my mother's.

I vaguely recall feeling very disappointed one day because it wasn't my grandmother who came to play a math game with us, but a bearded man whose name I can't remember. Later thanks to Maria and Catherine's research I understood that this must have been shortly after Sérgio Mestre's death when my grandmother visited Alberta N'Kondo. Perhaps they spoke about the past, and perhaps even about their children and grandchildren. But that's conjecture. We haven't found any writing, except for a few scribbles in my mother's notebook. That was when we systematically went through everything belonging to my grandparents and my mother a few years after the opening of the Paulo Demeester Library in the ruins of Megalissipo to try to interpret certain finds. There was also a mention of a visit from Alberta two years later.

A word that often came up in conversations between my parents, Jelani and friends from my father's *Ignarysis* group was the word *Wanderers* I knew them as the parents of new friends whom we generally warmly welcomed into our learning group, while their parents apparently had their own learning groups. The *Wanderers* were simply Ignorants who, during their wanderings after leaving the Poleis, came into contact with the *Walking Books*. Their primary concern, of course, was to reach one of the Three Spots as quickly as possible. The *Wanderers* generally didn't have specific plans. Some of them were very adept at tackling all sorts of obstacles and difficulties they encountered. Among the Walking Books, in turn, were often former initiators of Charter Learning Groups. The interaction between *Wanderers* and *Walking Books* often resulted in success.

Much later I learned that Kendi and Jamille's long-lost grandparents were part of a group of *Wanderers* taken in by Paradise residents on the shore of the lake. Kendi must have been about seven years old at the time. Kendi recently told me that as a little boy, he still remembers the emotion of his mother and grandparents, whom he called Mom and Dad, just like his mother did. During that period of

fleeing and seeking out rural communities, losing someone during the journey was almost always permanent.

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[Not experienced by Lev and Maria] In *Elysium* a new crisis emerges. The Fund Managers are talking about the *Third Great Boredom*. More and more young people are causing riots and confusing Virtual Reality with Reality, making their actions a renewed threat to the Space City. In immediate response, the Fund Managers are trapping the most troublesome individuals on two auxiliary satellites where they are kept under control with drugs. But the group of young people born in Space City, who did hear not true promises of unlimited space in the near future, once the *Bloomcampers* would likely return to Earth is increasing. The *Third Great Boredom* could quickly spiral out of control. The Fund Managers are considering discreetly contacting *GNet-Z* to ask how they can get rid of those figures, possibly in the direction of Mars or Ganymede, as has sometimes happened in the past.

It comes to a conversation in a maintenance satellite of *Elysium* and later in a small lunar dome attached to Moon Base 1. The representatives of *GNet-Z* clearly declare that it is not in line with their work to to make decisions about people, but they *can* contribute to training for young *Elysium* people for meaningful humanitarian work anywhere where there is a human presence. This could also be possible on Earth, but in that case they would work under constant supervision and after a gravity adjustment. The training would use the Virtual Reality game and gradually transition to face-to-face training. This can be done in *Elysium*, but if the Fund Managers prefer, locations on the Moon, Ganymede, or Europa can also be sought. This is necessary for those born in the Space City and whose bodies have never known anything other than a “false” gravity caused by rotation. Even the gravity on Mars, which is only a third of that on Earth, *Elysium* native residents

cannot cope without an adjustment period the length of which is still unknown.

But in the year 2134 (121.34), Halley returns. The comet approaches Earth to a distance of only 0.09 astronomical units (approximately 13 million kilometers)! Such a ‘close’ approach hasn’t occurred since the apparitions in 374 and 837 AD. Visibility of Halley’s Comet is very poor from the Northern Hemisphere. On 7 Dwiterómehns 121.34, the day of closest approach to Earth, the comet’s declination is of -77°. This means Halley’s Comet is only visible in the Southern Hemisphere during the period of closest approach. But the days before and after are quite spectacular. And they provide a huge boost to those convinced that it’s better to commit mass suicide now that the apocalypse has become reality.
The pitiful ignorance strikes once again.

An illuminating eclipse (2135 -2136)

Grandfather Gonçalo died unexpectedly at the age of 65. I was 8 at the time, and I remember how devastated Grandmother Fernanda and my parents were by the accident on the lake. Near the shore a boat with arriving *Wanderers* capsized during a sudden heavy downpour. The group of fishers on the bank immediately came to help. My grandfather was among them and probably lost consciousness when a falling tree branch hit his head. He was standing in the water, guiding drowning people to shore. According to eyewitnesses, the rain curtain at that moment made everything almost invisible, so it took a while before he was missed. When the rain stopped his body was found a little further on the bank. Until I was just over ten I had nightmares in which rain always played a role. I also remember that during that period, Grandmother Fernanda almost always had visitors. Grandfather Gonçalo and she were very well known in *Paradise of Books*, having long been involved in its development and organisation. Great-aunt Joana and Great-uncle Elton lived with her for a while. Thanks to Grandmother Fernanda's notebook, we also know today that Alberta N'Kondo and Fernando N'Gô visited her then.

Shortly after that family disaster there was a sharp increase in upcoming *Wanderers*. My friends and I talked about it because suddenly many parents were worried. It was the months between the equinoxes of Sedmomehns 2135 and Promehns 2136. The arriving *Wanderers* brought reports of the complete collapse of the Great Governments and of increasing violence in all the remaining Megapoleis. There was also talk of widespread massacres, which caused even more people to flee. Although, according to my parents, the situation in the Megapoleis had long been worrying the Three Spots, the Halley Passage and a simple solar eclipse a year later were enough to bring everything down. The astronomers had,

of course, long anticipated that eclipse. It would have occurred in certain places. In *Zone 2* it would be a full one on 7 Sedmomehns. And that was visible on the central part of Erebúm. The eclipse drew a black band with a width of between 170 and 230 km across the archipelago to which Megaludein belonged and further across Megabelgium and all Megapoleis towards the Black Sea, Middle East, ending near *Beautiful Pearl.*

The arrogant ignorants and mystical doomsayers who ruled many districts touched by the eclipse reinforced the classic fears of the previous year among the increasingly ignorant and impoverished population. Those who still had any local currency or valuables exchanged them for “protection”. The enormous wave of panic was the final death blow for *digits* based transactions with the exception of some parts of the Middle Kingdom. Moon bases 2 and 3 and *Beautiful Pearl* confirm the general destabilisation.

What I didn’t consciously know at the time but did experience is how Pépé Márquez and Tala Quispe launched a call from *Última Rosa* for a major debate among all *Convivialis Civitates* Communities to discuss how to combat obscurantism and its associated fatalism, defeatism, and destructive arrogance. As children, we were therefore well aware that adults were dealing with something serious. I still remember well how, shortly after I turned 9, our Charter Group talked with other groups in other places with good connections. I can still see how, in our group, Faisal Chakma’s father and grandfather, my parents, and Amadu Cheboi’s mother came to help us. I vaguely remember a conversation with others on a large screen that seemed strange to me. There were names like Anui and Mei Kato. We also talked with other children. I remember the name Keanu. And I also see Miguel Márquez in the company of someone named Aiyana. I also remember a mother on Moon Base 2 with her little daughter on her lap. They were probably Jane Forrest and Paula Pax. We were doing little experiments. One day, we observed the angle at which the sun’s rays struck each of our

homes. The adults helped us calculate the Earth's circumference, just as Eratosthenes had done almost 2,400 years before us. We made solar watches and compared our observations.

There was a special moment one day when we were working and a strange figure showed up. Some adults addressed him as Victor, others as Hunt III. A few years later, when we were living at the moon base, I spoke to my mother about it. She told me that a kind of shroud of secrecy had always surrounded the Hunt community since the origins of the Three Spots. The person who apparently caused a stir at the time was, according to some, a descendant of Victor Hunt, but according to others the community itself was the legacy of that scientist who himself had no children. My mother also told me then that Grandma Fernanda had worked for a long time on mathematical interpretations of space-time and that among her former colleagues there were very peculiar ideas about the relative perception of space and time, which allowed for even more exotic hypotheses. Space-time remains an enormous scientific challenge.

My mother did tell me that I remember a very special moment of our Charter Group. The effect of a simple solar eclipse was a sign to all anthropogogues working with learning groups to urgently address the increasing obscurantism. The Wanderers and the *Walking Books* were at the forefront of this effort to work more closely together. Without *digit*-economy it finally became somewhat easier to extract the Ignorant from the manipulation of the mystics. And those who thought they possessed wealth had little power on planet Earth which was at the moment in a sense unattainable. A general guideline emerged from the debates that every *Convivialis Civitas* would welcome and invite the ignorant to document themselves and, in doing so, to constantly check the sources of everything they were told. This was a great help in learning to distinguish between three things: pure invented fiction, dogmas based on specific canons, and falsifiable science based on

hypotheses. In this interactive work, dialogical learning became increasingly central.

[Not experienced by Lev himself] Varun Sampath lived in a relatively peaceful community until the solar eclipse threw a portion of his community into complete hysteria.
The community was nearly wiped out by a fanatical society whose leader assumed that all unsuspecting people who weren't soldiers of the apocalypse should leave Earth now to immediately enjoy eternal peace. Just before his family could enjoy that eternal peace they were able to flee across the water. For a few days, a sorts of an hermitage shelters the family in a small oasis until they regain their strength. Then they decide to venture toward the buffer zone between desert and vegetated areas. This buffer zone was one of the attempts by rural communities to create liveable areas throughout the Alkebulan continent, roughly halfway between the Tropic of Cancer and the equator. They took advantage of a failed project about a hundred years ago, when an attempt was made to build a green wall.
Solar eclipses and comets are not exclusive to one particular continent. Nor are they controlled by unknown powers, no matter how much the New Mystics like to proclaim this to the completely Ignorant masses who received only basic online instruction and never had the opportunity to be included in Charter Groups or other learning communities. Small, wandering groups are also emerging on the Abya Yala Continent, led by mystics with apocalyptic prophecies. Just as on the Erebúm and Waçúm Continents, many former militias and *Cou-clib-clan* members have joined these groups. *Beautiful Pearl* and Moon Base 2 are receiving confirmations that this enormous wave has now also disorganised the Middle Kingdom. The last place on Earth where banks still operated with local *digits* was destroyed partly because the banks themselves had become insolvent. The material reserves of raw materials that

guaranteed the digital means of payment had been used in the manufacture of technological instruments, and the rest was hidden by *GNet-Z* members since *Bloomcamp* and all her commercial enterprises lost direct communication between *Elysium* and the Earth.

In the space city, the information about what happened on Earth as a result of a simple cometary passage and a solar eclipse is heard and analysed with great disbelief. Today, people realise the enormous consequences of the rigid hierarchy and the persistence of arrogant Great Governments to continue to concentrate wealth in the hands of a few. Although the *Bloomcamp*-analysts had consistently dismissed the *Ignarysis* groups as enemies of the capitalist model — which is not entirely accurate — and had consistently dismissed all Bregmanian proposals as dangerous to the economic evolution of the planet [See *Arrogance & Ignorance*] they must now reluctantly admit that converting the school systems into online platforms for individual instruction was a disastrous side effect of the policy pursued since the rise of the districts in the Megapoleis until the departure of the *Bloomcampers* to the space city.

The Mestre brothers are now around sixty. Like everyone else in the space city and its work satellites they get a belated impression of the situation on Earth. They too are incredulous when they learn that the last economic activity in the Middle Kingdom has completely disappeared. Anyone who, like them, has passed more than half their lives forced into the satellites of *Elysium*, the couple noted with a kind of bitter satisfaction that the Earth's population continued to dig itself into further trouble even after the most perfidious activities of the *Elysium* gamblers during the *First Great Boredom*. But these messages also make it clear that their generation may never be able to return to Earth. Fear and anger quickly lead them to become involved with a group of young technicians with

whom they regularly contact from their satellite roles. They propose taking over the administration of the space city through local revolt. But the Fund Managers' spies quickly get wind of the matter. And although the managers would love nothing more than to get rid of the "Caligula group", they cannot allow revolts on that scale. The entire group of rebels heads towards Jupiter's moons in an experimental space bubble. Not only is this a potential danger nipped in the bud, but the exile also allows for an initial test from the space city to send humans on a long journey in such a space vehicle. All in all, it's still a journey of just over two years, and of course, many problems can arise along the way. If the journey succeeds, it will give a boost to the *Elysium* plans to evacuate Earth. The remaining population of the habitable parts of the planet must be evacuated into space if possible without killing everyone. After that the *Bloomcampers* can retake possession of the Earth and turn it into a sparsely inhabited nature reserve.

A new volcanic winter (2137-2139)

Jelani Zoungrana, Pepe Márquez, Mei Kato, and my father debated in later years the implications of the brief period between the reactions triggered by the comet and the eclipse and the intense tectonic activity that erupted almost two years later. The three natural phenomena combined not only fuelled more *End of the World* stories among devastated and often murderous groups of nomadic communities. They also strengthened the *Wanderers* who came in contact with Walking Books and *Convivialis Civitates* to throw off the cloak of ignorance.

But what actually happened? I was ten when we heard in our study group how a kind of chain reaction of three volcanic eruptions and heavy tectonic activity in zones where deep underground mining had created artificial tunnels was covering large parts of the Northern Hemisphere sky with a constant grey layer of dust and ash.

We were visited by two adults who had been involved in seismological research for a long time and with whom my grandfather *Sergei* arrived in *Paradise of Books*. They had installed seismological instruments in various locations. They explained to us that this tectonic activity wasn't unexpected. I was fascinated by their explanation of how continental plates move. They also told us how the search for deeper minerals might have amplified natural stresses in certain places on Earth with artificially created ones, but also increased the explosive force of gases released from the magma.

I also remember well how as children we were excited about the word volcanic *winter* until we realised that such a "winter" wouldn't bring us snow. I don't quite know how we knew what snow was, but I suspect we read stories that mentioned it.

Another thing we children really enjoyed was the completion of the

first and second inner rings of the surface metro (later the GAT network). Diagonal tracks were now being laid between the two inner rings. We especially appreciated that we could now get to the Central Place for visiting the film library, much faster than by bike. We also often visited various parts of *Paradise of Books*. Usually, I spent these visits with my brother Leon and Simba Zoungrana, who was two years older. Faisal Chakma was only seven but almost always came along on visits. His mother was one of our regular chaperones. At one point, six-year-old Fara, whom we all adored, showed up.

While we cover the entire territory with our Charter Group using the surface metro and bicycles my grandmother Fernanda was preparing for a decisive journey for the second time in her life. She became involved with a Three Spots working group that investigated the realistic possibilities of combining magnetic control of propulsion mechanisms with the self-made space-time bubbles. The *Sequoia* group was part of it at *Last Rose* just as were Carl Pax and Jane Forrest. The design bears a strong resemblance to the model that *Elysium* was testing for the journey to Jupiter's moons. Both models were begun in the *Sequoia Condominium*. The designers involved parted ways shortly thereafter.

I can only imagine what Grandmother might have thought after such conversations. She told me, while we were on the moon, how she often reviewed evolution since the beginning of this hectoyear, the term for century used by those who use the Holocene calendar. Less than forty years ago, she would have needed all her powers of persuasion to get her stubborn parents to flee to *Paradise of Books*. She managed to convince her mother with her grandmother Greta. Her father only joined them years later. And at the end of 121.37 it looked like she would have to convince this time her children that leaving Earth might be the best solution once the volcanic winter would made more regions difficult or uninhabitable. She had

already understood then that in *Paradise of Books* just as many residents thought they had to leave as there were who thought they had to stay. That was the case with most *Convivialis Civitates*. It is of course not easy to create a new self-built structure as *Paradise* to simply abandon and only to fall into the hands of whoever happens upon it and who doesn't know its recent history. But what if the volcanic winter continues to spread, or worse, if tectonic activity escalates into a destructive force that endangers the Earth's crust itself? Once, when she reflected on her concerns, she burst out laughing at her own thoughts. When my brother and I looked at her, she said to speak exactly like a mystic predicting the end of the world. She'd even heard one who displayed his own gross ignorance by saying that scientists had long known that the shifting of the tectonic plates would lead to New Pangaea. That is now arriving and will likely lead to massive biological extinction. He made a calculation error of around 250 million years…

[Not experienced by Lev himself] The Quispe and Márquez families didn't make the calculation error, but they are very concerned. They have more information that the increasing tectonic activity is the result of the reckless way in which aggressive mining has been handled over the past fifty years. Aiyana and Pepe's field laboratory, coupled with a small network of about twenty other measuring points, primarily in fault zones, is providing rather threatening predictions. There are clear indications that in certain areas where deep-sea mining has taken place, magma is flowing uncontrolled across the seabed. After six months of observation and numerous recalculations, Aiyana and Pepe decide to call up the rest of the *GNet-Z* to be notified in a global debate. They assume that within two to five years, the planet could become largely uninhabitable.

To avoid too much panic, they try to have a debate with those who have sufficient knowledge to prevent further panic and doom

scenarios. But although they are aware of the activities of the Three Spots and the *Convivialis Civitates* to try to frame this discretely, one inevitably attracts the attention of other communities of Ignorants. Astrological studies and the recording of events in the countries of the North make it easy to demonstrate that a seismic activity with a major impact is predicted. The anthropogogues redouble their efforts into a major collective learning effort. It becomes a Herculean task to try to move the entire Earth population to the moon and Mars in that record time…

The Vluchhaas family has now completely come to rest in *Paradise of Books.* Chaytan is 6 and very happy in the Charter group where Kate is also a member of. Jan and Chantal are in a group for adults and have learned to read, which has opened up a whole new world for them. That's why Jan suggests changing their name from Vluchthaas to Liber. Jan claims that he has now fully grasped the importance of being able to read and look up information, rather than simply accepting what others tell him. Chantal fully agrees with the name change, and Chaytan announces everywhere that he is freed now.

[Lev tells] The next two years were very turbulent for me, and I have a mosaic of memories, perhaps influenced by what I heard from my parents. The constant debate during those days was about staying or leaving. Fernanda remains adamant that the family should move to the moon. But according to as well Ignorant as Knowers, there are also plenty of safe places on Earth to remain and possibly surpass events on Earth from the air or from higher altitudes.

We know today due to the conversations between Alberto and Kendi after 122.08 that this was the last meeting between my grandmother Alberta and Fernando.

The volcanic winter has become increasingly palpable across the planet. Large streams of migrants are entering the Alkebulan

Continent as nearly all remnants of Megapoleis in the planet's Northern Hemisphere are slowly freezing.
What was the most difficult to hear during that period was what Simba announced to me. The Zoungrana family decided that they would stay in *Paradise of Books* to take in new *Wanderers* and *Walking Books*, now that the pressure on *Paradise* continues to mount. Over the next two months, I often had heated arguments with my grandmother as I tried to convince her to stay on Earth and help Simba and his parents with their rescue work. It was all in vain.

I was just 12 when I learned the decision was made. We were leaving Paradise, and no one knew whether it was a temporary or final decision. Seismic activity throughout the Erebúm region increased dramatically. We received information from the moon that all of southern Erebúm was being buried, and that numerous buildings were simply disappearing due to intense volcanic activity in the Mediterranean. The Azores archipelago and the Abya Yala continent were also being severely affected. The Azores were changing their structure, and it was currently unclear whether the activity would spread further east or south. In the Mediterranean however, the volcanoes were observed to be reawakening.
And so we left on 10 Ketwromehns 121.39 by space bubble to Moon base 2 where I would spend most of my adolescence.

[*Not experienced by Lev himself]*. The Sampath family is staying with a group unaware of the ongoing evacuation to the moon base. They are aware of the changing circumstances, but they seek higher ground in the Rwenzori region, where they find a small, self-sufficient community in a remote valley, thanks to simple agriculture and some small game hunting.
Among the movers to Moon base 2, 3 and 5 there are also a number of more arrogant mystics by *GNet-Z*. They were trapped by difficult circumstances. They themselves now constantly compare the onset

of the volcanic winter and the earthquakes dark period with the Toba explosion 75,000 years earlier.

The Knowers, whom they are now obliged to join, recall that even so Kant already placed earthquakes in nature and not in the supernatural. It is clear, however, that the volcanic winter to which the planet is subjected is leading to mass migrations and many unexpected fatalities. The planet seems completely disrupted, but the presence of Tala, Aiyana, and Ahanu is helpful. Aiyana possesses considerable information that allows her to attribute this disruption to disastrous human activity, not to the supernatural.

Regardless of origins or past, the Three Spots and Moon Bases 2 through 5 are joining forces to bring as many frightened and distraught Ignorants as possible to habitable zones, both on the planet and beyond, and then establish learning groups with them. This involves dialogic interaction and guidance to best support the Ignorants with their renewed desire to learn.

More reception sites are being planned between the tropics outside the archipelagos on Earth and Moon. Terraformation on Mars is not ongoing long enough and does not allow for large immigrant groups. Ganymede and nearby Europa are in a slightly better position, but the journey to them is long and complex. If the Earth appears to be collapsing, there will be too few spaceships available, and the *GNet-Z* members have not yet received any feedback about the Fund Managers' experimental space bubble ship journey. They are discreetly in contact with it without the rest of the *Elysium* is aware of it. The lunar migration accelerates, but unfortunately, there is little else to be done. The disaster is enormous, and by the end of 121.39, slightly more than half of the world's human population disappears, including many *GNet-Z* members and dwellers of known *Convivialis Civitates.* It is one of the greatest disasters in human history.

It is otherwise cynically ironic that the *Bloomcampers* at *Elysium*,

those who ultimately bear the greatest responsibility for this entire human disaster are the last to be informed of what is happening on Earth and Moon. And that happens somewhat by chance, after a spacecraft departing for Mars sends information to *Elysium* about large displacements between Earth and the Moon and the observation of significant large-scale magnetic disturbances on Earth.

Volcanic winter is now a reality and no one dares to really predict what will happen next.

End of book 11

a strange letter

Dear Pascal

We use small hiccups in the space-time continuum to bring you a saga of educators, pedagogues and anthropologists. The saga was first published in 122.15 (Holocene calendar), which corresponds to the year 2215 according to the calendar you use in the XXI century.
The dynasty spans 20 generations, from 1630 to 2222 in your era .
When we studied your century in preparing the work, we found your name and your interest in dialogic learning. That is why we kindly ask you to further distribute the documents that we send whenever we get the chance.

You can rest assured. The hiccup in the continuum will have no impact whatsoever on the past and future of living people. Only documents can be sent through it.
On behalf of the team of writers,

Maria Liber

Annexes

Evolution of the Bloomberg scale during the 21st century

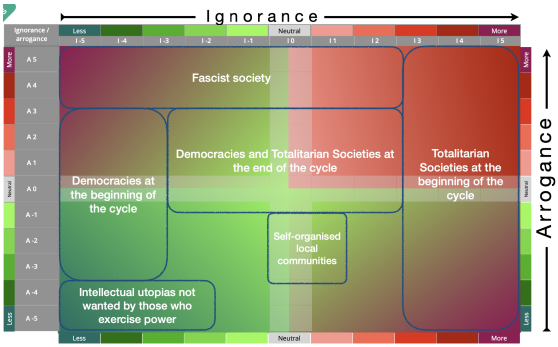
Bloomberg Value Numbers of Adults in 2018 (4.9M) and in 2090 (7.7M)

Wealth distribution in $ digits		2018		2090	
#	Maximum value	# individuals	% adults	# individuals	% adults
-2	10^-2 (1 cent)	1 500 000 000	30,13	3 400 000 000	44,01
-1	10^-1 (10 cent)				
0	10^0 (1)				
1	10^1 (10)				
2	10^2 (100)				
3	10^3 (1.000)	1 700 000 000	34,15	2 750 000 000	35,59
4	10^4 (10.000)	1 300 000 000	26,12	1 100 000 000	14,24
5	10^5 (100.000)	436 000 000	8,76	450 000 000	5,82
6	10^6 (1 million)	40 000 000	0,80	25 000 000	0,32
7	10^7 (10 million)	1 700 000	0,03	1 200 000	0,02
8	10^8 (100 million)	49 000	0,0010	49 000	0,0006
9	10^9 (1 billion)	2 700	0,0000542	23 600	0,000305
10	10^10 (10 billion)	150	0,000003	1 540	0,000020
11	10^11 (100 billion)	2	-	25	-
	Adult population	4 977 751 852	100,00	7 726 274 165	100,00
	Elysium candidates (#9, 10, and 11 + 1/5 of #8)			34 965	0,000453

Evolution of world population between 2018 and 2139

Individuals in rank		2018	2090	increase
#	Maximum value	# individuals		growth factor
-2 to 2	10^-2 (1 ct) to 10^2 (100)	1 500 000 000	3 400 000 000	2,27
3	10^3 (1.000)	1 700 000 000	2 750 000 000	1,62
4	10^4 (10.000)	1 300 000 000	1 100 000 000	0,85
5	10^5 (100.000)	436 000 000	450 000 000	1,03
6	10^6 (1 million)	40 000 000	25 000 000	0,63
7	10^7 (10 million)	1 700 000	1 200 000	0,71
8	10^8 (100 million)	49 000	49 000	1,00
9	10^9 (1 billion)	2 700	23 600	8,74
10	10^10 (10 billion)	150	1 540	10,27
11	10^11 (100 billion)	2	25	12,50
	Adult population	4 977 751 852	7 726 274 165	1,55

*(121.39)*OBJ

Year	Total population	Adult population	Relationship
2018	7,7	4,97	70% / 30%
2090	10,3	7,72	75% / 25%
	Reduction due to pandemics and extermination		
2105 (210.05)	6,5	4,15	64%/36%
	Reduction due to volcanic winter		
2139 (121.39)	3,5	2,27	65% / 35%
(In billions)			

Social analysis 21st century by Sérgio Mestre